

FLYING DUTCHMAN ALMANAC

1911



MOLINE PLOW CO.
MOLINE, ILL



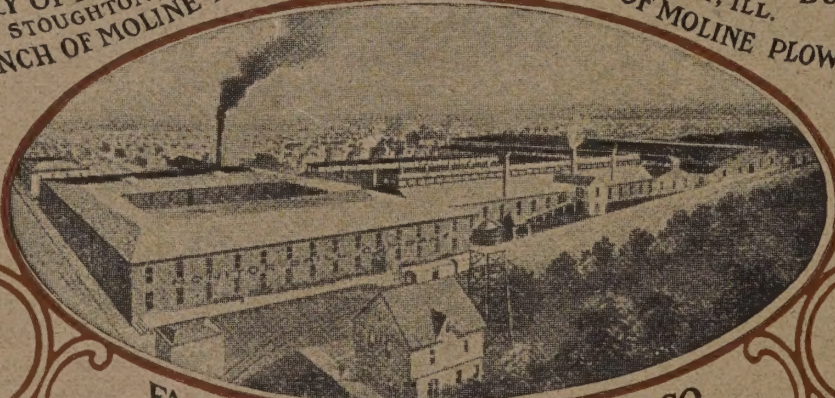
FACTORY OF MOLINE PLOW CO.
MOLINE, ILL.



FACTORY OF MANDT WAGON CO.
STOUGHTON, WIS.
BRANCH OF MOLINE PLOW CO.



FACTORY OF HENNEY BUGGY CO.
FREEPORT, ILL.
BRANCH OF MOLINE PLOW CO.



FACTORY OF MONITOR DRILL CO.
MINNEAPOLIS, MINN.
BRANCH OF MOLINE PLOW CO.



FACTORIES OF FREEPORT CARRIAGE CO.
FREEPORT, ILL.
BRANCH OF MOLINE PLOW CO.

Calendar For 1911

CALENDAR FOR 1911.

ECLIPSES.—Standard Time.

In the year 1911 there will be two Eclipses, both of the Sun.

I.—A Total Eclipse of the Sun, April 28th Visible to the United States, with the exception of the northern and north-eastern portions, the eclipse extending north as far as a line drawn through the cities of Philadelphia, Milwaukee, Butte, Mont., and Portland, Ore

Also visible to Mexico, Central America, the western portion of the West Indies, the eastern half of Australia, New Zealand, and the Pacific Ocean, the path of totality extending from Auckland, Australia, across the Pacific Ocean, almost to Central America.

II.—An Annular Eclipse of the Sun, October 22. Invisible to the United States. Visible to Asia, the Philippine Islands, Australia, the northern part of New Zealand, and the Pacific Ocean, the path of annulus starting at the Aral Sea, extending across Asia, passing south of the Philippine Islands, across New Guinea, to a point in the Pacific Ocean.

THE TWELVE SIGNS OF THE ZODIAC.

Ram, Aries,  Head and Face.



THE SEASONS.

Eastern Time

Vernal Equinox (Spring begins).....	March 21 d. 0 h. 54 m. P. M.
Summer Solstice (Summer begins).....	June 22 d. 8 h. 35 m. A. M.
Autumnal Equinox (Autumn begins).....	Sept. 23 d. 11 h. 17 m. P. M.
Winter Solstice (Winter begins).....	Dec. 22 d. 5 h. 53 m. P. M.

MORNING AND EVENING STARS.

MERCURY (♿) will be Morning Star about February 2, June 1, and September 25; and Evening Star about April 14, August 13 and December 7.

VENUS (♀) will be Evening Star till September 15; then Morning Star the rest of the year.

JUPITER (♃) will be Morning Star till April 30; then Evening Star till November 18; and then Morning Star again the rest of the year.

ASTRONOMICAL CHARACTERS.

☉ Sun; ⊕ Earth; ☿ Mercury; ♀ Venus; ♂ Mars; ♃ Jupiter; ♄ Saturn; ♅ Uranus; ♆ Neptune; ☾ Moon; ☾ Runs highest; ☾ Runs lowest; ☿ Conjunction; ♄ Opposition; □ Quadrature ☊ Ascending Node; ☋ Descending Node; ♁ Perigee, near ☊; ♁ Apogee, far from ☊.



JANUARY

MOON'S PHASES.

	BOSTON		NEW YORK		CHICAGO	
	D.	H. M.	D.	H. M.	D.	H. M.
F. Q.	6	1 20 M.	8	1 20 M.	8	0 20 M.
F. M.	14	5 26 A.	14	5 26 A.	14	4 26 A.
L. Q.	22	1 21 M.	22	1 21 M.	22	0 21 M.
N. M.	30	4 45 M.	30	4 45 M.	30	3 45 M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.,
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D.	D.		Sun	Sun	Moon	Sun	Sun	Moon	Sun	Sun	Moon
M.	W.		rises	sets	sets	rises	sets	sets	rises	sets	sets
			H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.

Historical Events.

1. Sunday after Christmas.

Matt. 1

Day's Length, 9h. 7m.—9h. 19m.—10h. 1m.

1	S	Circumcision. ♂ in ♀: ♀ ♀ ♀	7	30	4	37	5	21	7	24	4	43	5	27	7	3	5	4	5	55
2	M	h stationary	7	30	4	38	6	27	7	25	4	43	6	33	7	3	5	5	6	57
3	Tu	⊕ in perihelion	7	30	4	39	7	34	7	25	4	44	7	38	7	3	5	6	7	58
4	W	♀ in perihelion: ♀ ♀ ♀	7	30	4	40	8	42	7	25	4	45	8	45	7	3	5	7	9	0
5	Th	♂ ♀ ♀: ♀ ♀ ♀	7	30	4	40	9	51	7	25	4	46	9	53	7	3	5	7	10	2
6	Fr	Epiphany	7	30	4	42	11	0	7	25	4	47	11	1	7	3	5	8	11	4
7	Sa	♀ in aphelion	7	30	4	43	morn		7	25	4	48	morn		7	4	5	9	morn	

2. 1st Sunday after Epiphany.

Luke 2

Day's Length, 9h. 14m.—9h. 24m.—10h. 6m.

8	S	8th. ♂ h ♀	7	30	4	44	0	11	7	25	4	49	0	10	7	4	5	10	0	8
9	M	Mississippi seceded, 1861	7	29	4	45	1	24	7	24	4	50	1	22	7	4	5	11	1	14
10	Tu	♂ ♀ ♀ inferior: ♀ in ♀	7	29	4	46	2	40	7	24	4	51	2	36	7	4	5	11	2	22
11	W	8th. Alabama seceded, 1861	7	29	4	47	3	59	7	24	4	52	3	54	7	4	5	12	3	34
12	Th	♂ in perigee	7	28	4	48	5	18	7	24	4	53	5	12	7	4	5	13	4	47
13	Fr	Nelson Dingley died, 1899	7	28	4	49	6	32	7	24	4	54	6	25	7	3	5	14	5	58
14	Sa	14th. ♂ ♀ ♀	7	28	4	50	rises		7	23	4	55	rises		7	3	5	15	rises	

3. 2d Sunday after Epiphany.

John 2

Day's Length, 9h. 24m.—9h. 33m.—10h. 13m.

15	S	♂ gr. hel. lat. N.	7	27	4	51	5	40	7	23	4	56	5	45	7	3	5	16	6	10
16	M	♂ ♀ ♀. Marshall Field d., 1906	7	27	4	52	6	56	7	22	4	57	7	0	7	3	5	17	7	19
17	Tu	P. C. Knox, Senator, 1905	7	27	4	53	8	10	7	22	4	58	8	13	7	3	5	18	8	26
18	W	♂ gr. libration W.	7	26	4	55	9	20	7	21	5	0	9	22	7	2	5	19	9	29
19	Th	N. G. Gonzales assassin'd, 1903	7	25	4	56	10	26	7	21	5	1	10	26	7	2	5	20	10	28
20	Fr	♂ ♀ ♀. Chicago Crib Fire, 1909	7	25	4	57	11	30	7	20	5	2	11	29	7	2	5	20	11	26
21	Sa	♀ stationary. Southern d. 1880	7	24	4	58	morn		7	20	5	3	morn		7	1	5	21	morn	

4. 3d Sunday after Epiphany.

Matt. 8

Day's Length, 9h. 36m.—9h. 45m.—10h. 21m.

22	S	22d. ♂ ♀ ♀	7	24	5	0	0	33	7	19	5	4	0	31	7	1	5	22	0	22
23	M	♂ in ♀	7	23	5	1	1	36	7	19	5	6	1	33	7	1	5	23	1	19
24	Tu	♂ in apogee	7	22	5	2	2	39	7	18	5	7	2	34	7	0	5	24	2	16
25	W	Conversion of St. Paul	7	21	5	3	3	41	7	17	5	8	3	35	7	0	5	25	3	13
26	Th	♂ ♀ ♀. H. M. Field died, 1907	7	21	5	5	4	42	7	17	5	9	4	36	6	59	5	26	4	10
27	Fr	♂ ♀ ♀. J. G. Blaine d., 1893	7	20	5	6	5	40	7	16	5	10	5	33	6	59	5	27	5	6
28	Sa	Cuba independent, 1909	7	19	5	7	6	31	7	15	5	11	6	24	6	58	5	28	5	57

5. 4th Sunday after Epiphany.

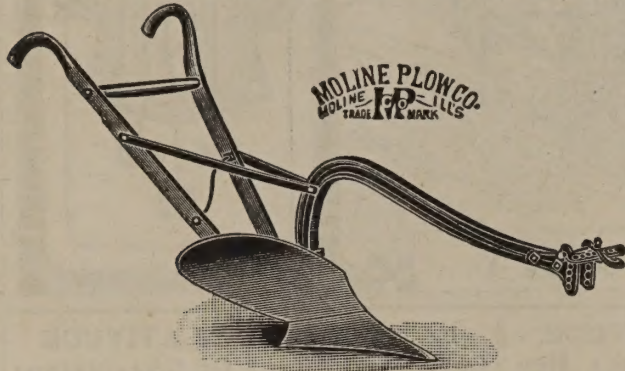
Matt. 8

Day's Length, 9h. 50m.—9h. 58m.—10h. 31m.

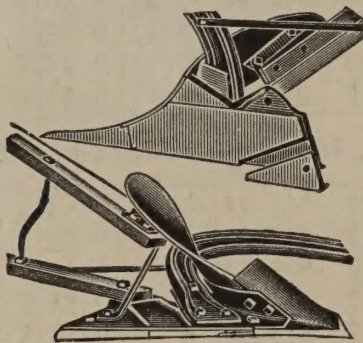
29	S	♂ ♀ ♀. McKinley born, 1843	7	18	5	8	sets		7	14	5	12	sets		6	58	5	29	sets	
30	M	30th. ♀ gr. hel. lat. S.	7	17	5	10	5	23	7	13	5	14	5	28	6	57	5	30	5	50
31	Tu	♂ ♀ ♀	7	16	5	12	6	32	7	12	5	15	6	36	6	57	5	31	6	52

BLUE BIRD SERIES

THIS plow is very strong. It is a general purpose plow, working equally well in sod or stubble. It is an excellent implement for plowing in cotton and tobacco lands and may be used in timber land to good



advantage. The Blue Bird is built on a heavy pressed steel frog, or block, which constitutes the frame to which the share, moldboard, landside, steel beam and standard for wood beam are bolted, making it very strong. It is made with a medium landside, the inside of heavy chilled iron, the outside of crucible steel, with



a chilled "slip heel" which is removable, and can be replaced at a small cost. The moldboard is heavily shinned. The moldboard is made either solid or soft center steel. The share is of crucible cast steel and has a heavy duck-bill point, and EXTRA share can be furnished either of crucible steel or chilled cast iron. Made wood and steel beam, right and left hand.

NEBRASKA CLIPPER PLOW

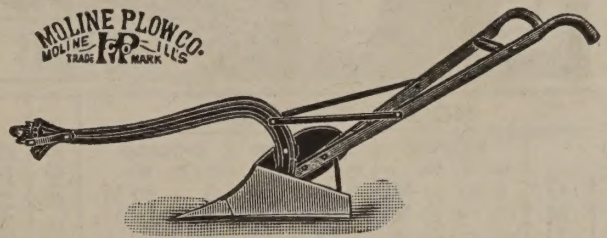
THIS plow was built especially for the loose, fluffy soils of Nebraska and northern Iowa, where it has met with great success and is a general favorite.



It is recommended for any locality where this character of soil is encountered. It has soft center, hardened steel moldboard, share and landside. Right hand and steel beam only. Can be furnished with either medium or low landside. Built 14, 16 and 18-inch.

MOLINE SCOTCH CLIPPER OR "C" SERIES PLOW

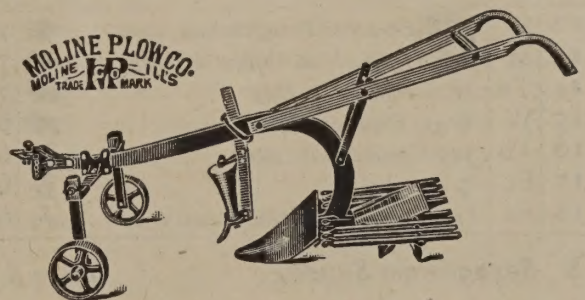
THE Scotch Clipper series of plows is equipped with high and long moldboards, especially adapted to general purpose work. The turn of the moldboard is long and easy so that the furrows are lapped with perfect regularity. The beams are made extra heavy and every care is taken to make these plows perfect. Right and left hand. All wood beam plows are made with index beam. The high landside will be found a great improvement over the medium landside when



used for deep plowing in clay or where there are small cobblestones, gravel or weeds. Has cast landside shoe for the protection of the landside and operates to advantage in keeping the plow to land. It is chilled very hard at back end, insuring long wear. When worn out it may be replaced at a trifling cost, thus saving the expense of an entire new landside. These plows are made wood and steel beam, right and left hand.

MOLINE KNOCKER POTATO DIGGER

THE Moline Knocker Potato Digger is adapted to all soils. The blade, which can be furnished either solid or soft center steel, is slightly concave, and the fingers have a shaking motion which frees the potatoes from the soil and leaves them clean and sound on top of the ground. The trash fender clears away



the weeds and vines which would otherwise clog up at the foot of the beam. The digger is complete with trash fender and fore carriage. The Moline Knocker Potato Digger is a high grade, efficient tool at small cost, and a labor saver that will pay for itself in one season. Thousands of them in use and endorsed by every farmer who has given them a trial. The Moline Knocker Potato Digger is equipped with fore carriage as shown in illustration. This carriage is built of steel and is strong and substantial. The wheels may be adjusted up and down for various depths of digging. The carriage causes the digger to maintain an even depth in rough ground, and makes it easy for young boys to handle without overtaxing their strength.



FEBRUARY

	BOSTON			NEW YORK			CHICAGO		
	D.	H.	M.	D.	H.	M.	D.	H.	M.
F. Q.	6	10	27 M.	6	10	27 M.	6	9	27 M.
F.M.	13	5	37 M.	13	5	37 M.	13	4	37 M.
L. Q.	20	10	44 A.	20	10	44 A.	20	9	44 A.
N.M.	28	7	31 A.	28	7	31 A.	28	6	31 A.

MOON'S SIGNS

Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

Of New York City,
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

Historical Events.

D M	D. W.	<i>Historical Events.</i>	MO	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets
				H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	W	☾ gr. libration E.	☾	7 15	5 13	7 42	7 11	5 16	7 44	6 56	5 32	7 55
2	Th	<i>Purification—Candlemas</i>	☾	7 14	5 14	8 52	7 10	5 18	8 53	6 55	5 33	8 58
3	Fr	☐☿☉. G.W. Childs died, 1894	☿☉	7 13	5 15	10 3	7 10	5 19	10 3	6 55	5 34	10 2
4	Sa	Elkins Mine Disaster, 1907	☿☉	7 12	5 17	11 15	7 9	5 20	11 13	6 54	5 35	11 7

6. 5th Sunday after Epiphany. Matt. 13. Day's Length, 10h. 7m.—10h. 13m.—10h. 42m.

5	S	 $\odot$ h d	 7 11 5 18	morn	7 8 5 21	morn	6 53 5 35	morn
6	M	 $\odot$ h. d in Ω	 7 10 5 19	o 29	7 7 5 23	o 26	6 52 5 36	o 13
7	Tu	δ in Υ . Baltimore Fire, 1904	 7 9 5 20	1 45	7 6 5 24	1 40	6 52 5 38	1 21
8	W	Gen. John R. Lewis died, 1900	 7 8 5 22	3 2	7 4 5 25	2 56	6 51 5 38	2 32
9	Th	d in perigee	 7 7 5 23	4 15	7 3 5 26	4 8	6 50 5 39	3 41
10	Fr	$\odot$ δ δ : $\odot$ Ψ d	 7 6 5 25	5 21	7 2 5 28	5 14	6 49 5 40	4 44
11	Sa	Steamer Larchmont lost, 1907	 7 4 5 26	6 16	7 1 5 29	6 10	6 49 5 41	5 46

7. Septuagesima Sunday. *Matt. 20.* Day's Length, 10h. 25m.—10h. 30m.—10h. 54m.

12	S	 Steamer Penguin lost, 1909	7	2	5	27	rises	7	0	5	30	rises	6	48	5	42	rises
13	M	 13th. Von Bulow d., 1894	7	1	5	28	5 47	6	58	5	31	5 50	6	47	5	43	6 7
14	Tu	<i>St. Valentine's Day</i>	7	0	5	30	6 59	6	57	5	32	7 1	6	46	5	44	7 12
15	W	☾ gr libration W.	6	59	5	31	8 7	6	56	5	33	8 8	6	45	5	45	8 12
16	Th	Jay Cooke died, 1905	6	58	5	32	9 14	6	54	5	35	9 13	6	44	5	46	9 12
17	Fr	☿ in aphelion	6	56	5	33	10 19	6	53	5	36	10 17	6	43	5	46	10 11
18	Sa	La Esperando Mine Disas. 1907	6	55	5	35	11 22	6	52	5	37	11 19	6	42	5	47	11 8

8. Sexagesima Sunday. Luke 8 Day's Length, 10h. 43m.—10h. 47m.—11h. 7m.

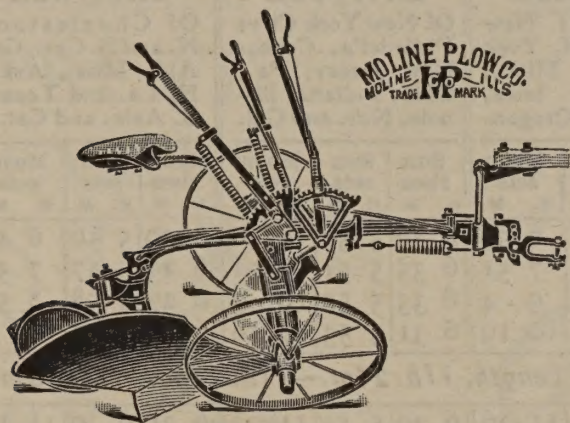
19	S	 6 7 4: 4 in 19	 6 53 5 36	morn	6 51 5 38	morn	6 41 5 48	morn
20	M	 20th. C D.Wright d. 1909	 6 52 5 37	0 25	6 49 5 40	0 21	6 40 5 49	0 4
21	Tu	4 in apogee	 6 50 5 38	1 28	6 48 5 41	1 23	6 39 5 50	1 1
22	W	Atlantic Fleet returned, 1909	 6 49 5 39	2 31	6 46 5 42	2 25	6 38 5 51	2 0
23	Th	Panama Canal Treaty, 1904 ☾	 6 47 5 41	3 30	6 45 5 43	3 23	6 37 5 51	2 56
24	Fr	♂♂. St. Matthias	 6 46 5 42	4 24	6 43 5 45	4 17	6 35 5 52	3 49
25	Sa	♂♂. S. Mackaye died, 1894	 6 44 5 43	5 11	6 42 5 46	5 5	6 34 5 53	4 38

9. *Quinquagesima Sunday* *Luke 18.* *Day's Length, 11h. 2m.—11h. 7m.—11h. 21m.*

26	S	Gen. Patrick Walsh died, 1900		6 43	5 45	5 51	6 40	5 47	5 45	6 33	5 54	5 22
27	M	 ♂ ♀		6 41	5 46	6 24	6 39	5 48	6 19	6 32	5 55	6 1
28	Tu	 28th. Rachel born, 1820		6 39	5 47	sets	6 38	5 49	sets	6 31	5 56	sets

GOOD ENOUGH SULKY PLOW

THERE has never been a sulky plow made by anybody, anywhere, that has attained the reputation enjoyed by the Good Enough. Its success is due to its good work, many conveniences, splendid wearing qualities and light draft. It is an extremely simple plow and will work in any soil that can be plowed with a moldboard plow. It has the desirable features of high priced sulky plows without the complicated construction of the very high lift type. The land axle has a yielding spring—uneven ground does not affect depth of furrow. Turns square corners either right or left. The landing lever and swinging clevis permit the operator to change the land of the plow instantly without stopping his team or leaving the seat. Bottoms of different sizes can be fitted to the same beam.



Furrows of different widths can be turned with the same bottom. Made both right and left hand. Sizes from ten to eighteen inches. Bottoms for every condition of soil. Wheels have removable hub boxes, dust proof and oil tight. Breaker or middle breaker bottom can be used in place of regular bottom. Mold

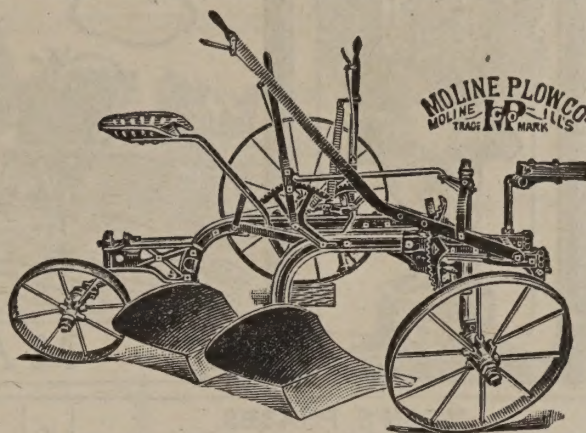
board soft center hardened steel, double shin; share soft center hardened steel.

There is not an ounce of inferior material in this plow. It couldn't be better if it cost twice as much. Its simplicity makes the low price, its adaptability makes the high value. Pole attachment furnished with the Good Enough at a small extra cost.

GOOD ENOUGH GANG PLOW

THE Good Enough Gang was designed to supply a durable and thoroughly reliable gang plow at a moderate cost. A plow that would be in the gang class what the world-famous Good Enough Sulky is to the sulky class. The success of the effort is attested by the great demand for them in sections where they have been introduced. The front furrow wheel is set

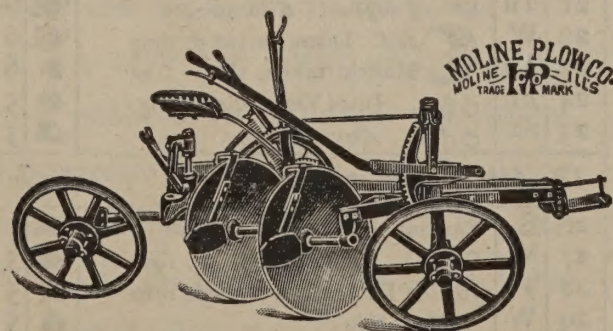
obliquely and is connected with a steering lever. The plow can be operated either with or without pole. Made right and left hand. We are enabled to name a



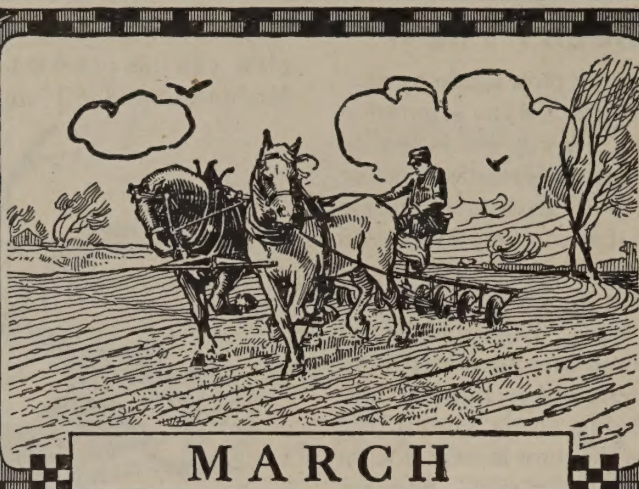
low price on this plow on account of its simplicity, and can assure our friends that the quality of its work cannot be excelled by any plow at any price.

ROTARY DUTCHMAN DISC PLOW

ALL frame parts are made of steel, heavily braced. Axles are of heavy hard steel. The scrapers are held in place by a device superior to that found on disc plows of any other make. Rear axle has lever for raising and lowering. This will be found of great advantage where the plow is used in different soils. In easy reach of the operator is a lever for raising and lowering front furrow wheel. Also a guiding lever, which is very necessary for doing good work. The land wheel is provided with a yielding spring, also an assisting raising spring. The wheels have cast V-shaped rims, and long removable bearing boxes provided with sand caps to protect bearings from sand and grit. The hitch consists of a broad platform clevis which is adjustable up, down and sidewise. These gang disc plows have had the advantage of experience and tests, are the latest in improvements, the most perfect in shape and most effective for work. The discs are set at just the right angle to handle the soil most effectively, and with the assistance of the adjustable scrapers, turn the ground and leave it in such good condition that harrowing is often unnecessary. In all gang disc plows the great trouble has been to get bearings that would stand the work. The New Rotary Dutchman has bearings that positively overcome this difficulty. The Rotary Dutchman is made in two, three and four discs. The three disc can be



converted into a two disc, and the four into a three. These plows are used for traction engine plowing very largely and have no equals for this work.



MARCH

MOON'S PHASES.

	BOSTON		NEW YORK		CHICAGO	
	D.	H. M.	D.	H. M.	D.	H. M.
F. Q.	7	6 1 A.	7	6 1 A.	7	5 1 A.
F. M.	14	6 58 A.	14	6 58 A.	14	5 58 A.
L. Q.	22	7 26 A.	22	7 26 A.	22	6 26 A.
N. M.	30	7 38 M.	30	7 38 M.	30	6 38 M.

MOON'S SIGNS

LATITUDE
Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE
Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.

LATITUDE
Of Charleston; N. and S. Car., Ga. Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.

D. M.	D. W.	Historical Events.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.
1	W	Ash Wednesday. St. David	6 38	5 48	6 39	6 36	5 50	6 40	6 30	5 56	6 47
2	Th	♂ ♀ ♄. Gen. Early died, 1894	6 36	5 50	7 51	6 35	5 51	7 51	6 29	5 57	7 52
3	Fr	Juneau Mine Explosion, 1910	6 35	5 51	9 4	6 33	5 52	9 3	6 27	5 58	8 58
4	Sa	♂ ♀ ♄. Taft inaugurated, 1909	6 33	5 52	10 19	6 31	5 53	10 16	6 26	5 59	10 5

10. 1st Sunday in Lent.

Matt. 4. Day's Length, 11h. 21m.—11h. 24m.—11h. 35m.

5	S	♄ in ♍. La Place died, 1827	6 32	5 53	11 36	6 30	5 54	11 32	6 25	6 0	11 14
6	M	♄ in perigee	6 30	5 54	morn	6 28	5 55	morn	6 23	6 0	morn
7	Tu	♂ ♀ ♄. E. Burritt died, 1879	6 28	5 56	0 53	6 27	5 57	0 47	6 22	6 1	0 25
8	W	♂ ♀ ♄. Jake Schaefer died, 1910	6 27	5 57	2 7	6 25	5 58	2 1	6 21	6 2	1 34
9	Th	♂ ♀ ♄. E. J. Phelps d. 1900 ♄	6 25	5 58	3 14	6 24	5 59	3 7	6 20	6 3	2 39
10	Fr	♂ gr. hel. lat. S.	6 23	5 59	4 11	6 22	6 0	4 4	6 18	6 4	3 37
11	Sa	♂ ♀ ♄. Tasso born, 1544	6 21	6 0	4 57	6 21	6 1	4 51	6 17	6 4	4 28

11. 2d Sunday in Lent.

Matt. 15. Day's Length, 11h. 42m.—11h. 43m.—11h. 49m.

12	S	Battleship Jena Explosion, 1907	6 19	6 1	5 33	6 19	6 2	5 28	6 16	6 5	5 10
13	M	Gold Standard Bill passed, 1900	6 18	6 3	6 2	6 17	6 3	5 59	6 15	6 6	5 46
14	Tu	♂ ♀ ♄. ♄ gr. libration W.	6 16	6 4	rises	6 15	6 4	rises	6 13	6 7	rises
15	W	♂ ♀ ♄. 61st Congress open, 1909	6 15	6 5	6 57	6 14	6 5	6 57	6 12	6 7	6 58
16	Th	Joseph Medill died, 1899	6 13	6 6	8 1	6 12	6 6	8 0	6 11	6 8	7 56
17	Fr	St. Patrick	6 11	6 7	9 6	6 11	6 7	9 3	6 10	6 9	8 54
18	Sa	♂ ♀ ♄. ♄ in ♍	6 9	6 9	10 11	6 9	6 8	10 7	6 8	6 9	9 53

12. 3d Sunday in Lent.

Luke 11. Day's Length, 12h. 2m.—12h. 2m.—12h. 3m.

19	S	Yale College founded, 1700	6 8	6 10	11 16	6 8	6 10	11 11	6 7	6 10	10 51
20	M	♂ ♀ ♄ superior	6 6	6 11	morn	6 6	6 11	morn	6 6	6 11	11 49
21	Tu	Spring begins. ♄ in apogee	6 4	6 12	0 19	6 4	6 12	0 13	6 4	6 12	morn
22	W	♂ ♀ ♄. 22d. Dean Farrar d. 1903	6 2	6 13	1 19	6 2	6 13	1 12	6 3	6 12	0 45
23	Th	♂ ♀ ♄. Madrid taken, 1808 ♄	6 1	6 14	2 15	6 1	6 14	2 8	6 2	6 13	1 40
24	Fr	♂ ♀ ♄. Jules Verne died, 1905	5 59	6 15	3 5	5 59	6 15	2 58	6 0	6 14	2 31
25	Sa	♂ ♀ ♄. Annunciation	5 57	6 16	3 47	5 58	6 16	3 41	5 59	6 14	3 16

13. 4th Sunday in Lent.

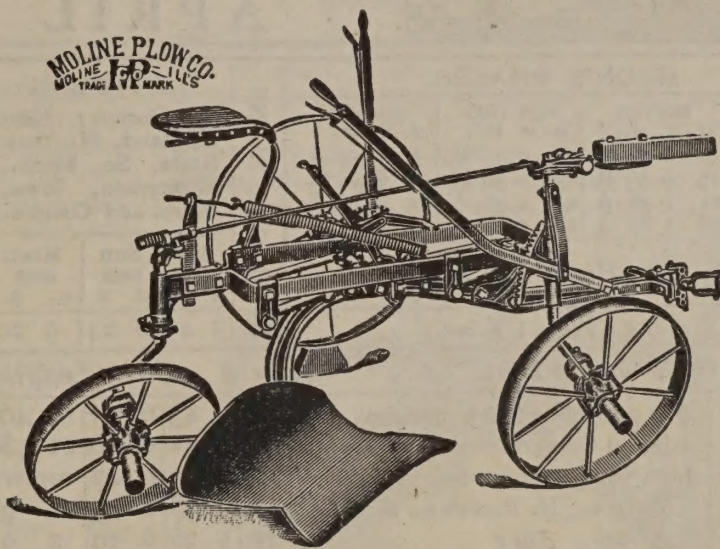
John 6. Day's Length, 12h. 23m.—12h. 21m.—12h. 17m.

26	S	Earthquake at Chilapa, 1908	5 55	0 18	4 22	5 56	6 17	4 17	5 58	6 15	3 56
27	M	♀ in ♍. Gen. Joubert d., 1900	5 54	6 19	4 52	5 54	6 18	4 48	5 56	6 15	4 32
28	Tu	Justice D. J. Brewer died, 1910	5 52	6 20	5 18	5 52	6 19	5 15	5 55	6 16	5 5
29	W	♂ ♀ ♄. ♀ in ♍	5 50	6 21	5 41	5 51	6 20	5 40	5 54	6 17	5 35
30	Th	♂ ♀ ♄. 30th. ♄ stationary	5 48	6 22	sets	5 49	6 21	sets	5 52	6 18	sets
31	Fr	♂ ♀ ♄. Hayden b., 1732	5 47	6 23	8 1	5 48	6 22	7 59	5 51	6 18	7 50

Best Ever Sulky and Gang Plows

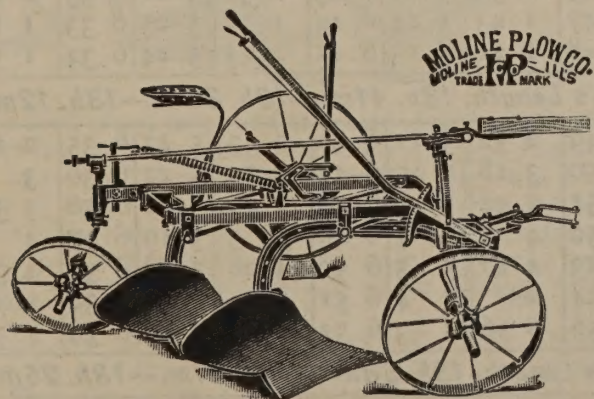
We want to convince you that Best Ever plows have no equal in the high lift class. We want you to buy these plows and compare them in points of good work, light draft and durability with the best plow you have used heretofore. We will be satisfied with your judgment.

Remember that
"BEST
EVER
SHARES
DON'T
BREAK."



After being sharpened these shares can, and should be, retempered. Any blacksmith can do this, or you can do it yourself by heating the share a cherry red, in any kind of fire, and immersing in any kind of water. **We guarantee the share absolutely against injury in this process.** No other soft center steel will stand this test, and no other manufacturer will guarantee shares after they have been in blacksmiths' fires. Our soft center shares and moldboards are made of special steel. Perhaps you have seen our blacksmiths

demonstrating this steel at the fairs. This steel is made by only one mill and we take the entire output. By being enabled to retemper the shares without danger of breakage in so doing you are assured a hard share all the time, which will increase the life of the share and materially reduce the cost per acre of plowing.

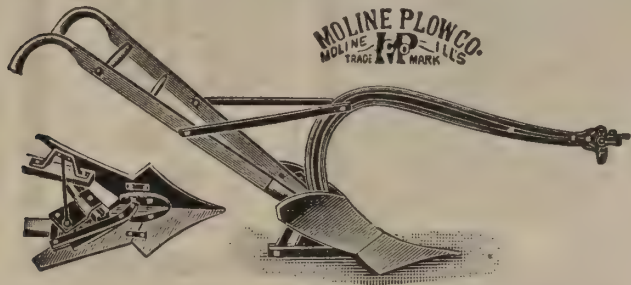




30 | S | 84 ☉: ♄ in perigee | ♄ | 4 59 | 6 57 | 9 38 || 5 2 | 6 53 | 9 32 || 5 15 | 6 40 | 9 8

NORTH TEXAS MIDDLE BREAKER

ALTHOUGH called the "North Texas" it is in general use all through the south wherever middle breakers are in demand, and has made for itself the reputation of being the best for any soil. It

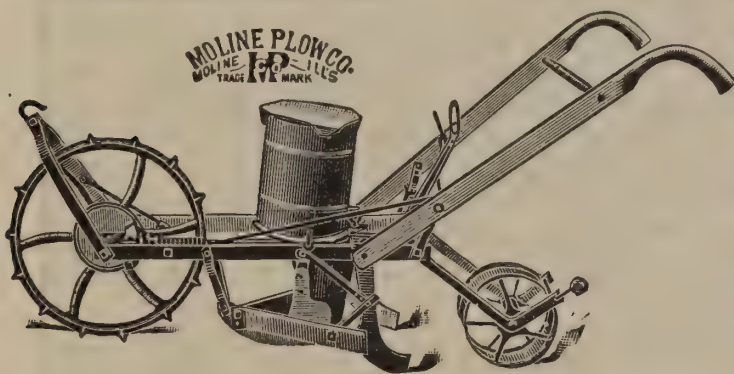


is constructed with steel rudder, with guiding knife connected, each being adjustable independently of the other. Moldboards made either hard or solid and well braced. Frog is made of malleable iron and very heavy. Has high, heavy steel beam. Share has heavy steel point welded underneath for wear and strength. Made 8, 10, 12, 14 and 16-inch.

NEW LULU RUNNER COTTON AND CORN PLANTER

THIS is a neat, compact, closely coupled tool, free from knuckle joints and counter shafts. The seed shaft is driven by gears from the main wheel. These gears are well enclosed to exclude dirt. The shaft runs direct from the driving wheel to the seeding device, doing away with knuckle joints and counter shafts, common on other makes of this type of planter. This not only simplifies the planter, but makes it more durable and less liable to get out of order.

The corn and cotton feed is the well known Moline King Cotton style, which is familiar to most planters, and never failed to give satisfaction under any circumstances or conditions.



The seed can is large and is provided with agitators to prevent the cotton seed from banking. An important feature of these agitators is that they will not break or crush the seed. The feed is changed by simply sliding gate at back of can. To change from cotton to corn feed, all that is necessary is to take out agitator and put in corn cut-off, which is easily and quickly done.

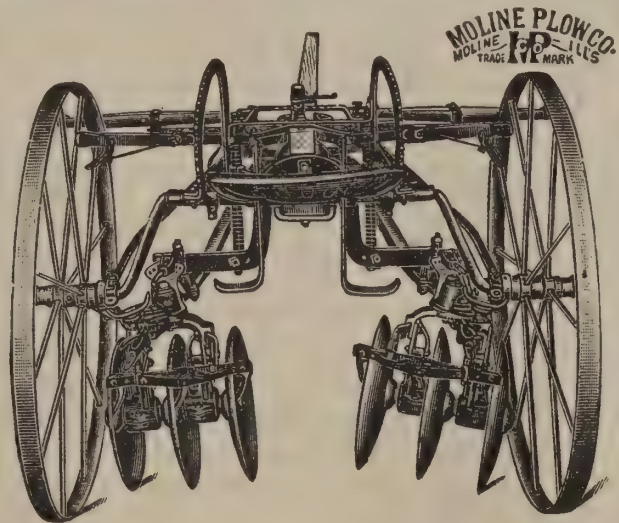
Plates are furnished as follows: 1 cut-off plate; 2-hole plate to drop 30 inches apart; 3-hole plate to drop 20 inches apart; 4-hole plate to drop 15 inches apart. A pindar plate can also be furnished.

The runner opens the furrow and sweeps the surface

before the seed is deposited. The blades cover the seed and the press wheel completes the seed bed. The press wheel is operated by a lever and a ratchet, by means of which it may be set high or low, as desired. It may be raised entirely from the ground or set so low that it will carry the runner and covering blades clear of the ground when on the road. It may be used as an open wheel by removing the steel band. The planter can be thrown in and out of gear by the hand or foot, as desired.

NEW CAPTAIN KIDD FOOT GUIDE DISC CULTIVATOR

THIS Cultivator, being constructed almost entirely of steel, admits of the frame being very light without any sacrifice of strength. The operator is given a clear view of his work, and the implement presents a neat appearance. The frame is attached to the pole on a pivot, enabling the operator by means of the convenient foot levers to swing the cultivator



either to the right or left to cultivate hills not planted in direct line. Hills out of the row are easily cultivated around without cutting or destroying any of the stalks. The frame is made rigid at pleasure. The Captain Kidd is easily controlled and quickly adjusted for cultivating at any depth required. The soil can be thrown up to the corn and all the surface pulverized without in any way disturbing the growing roots. The gangs can be worked close up to the plant without danger of cutting it. They are adjustable and can be set to or from the rows and at any angle for hilling up or laying by corn, or for cultivating listed corn. They are held in the ground by the weight of the frame and the driver, assisted by pressure springs which can be adjusted to give any weight on the gangs that is desired, adapting the cultivator to all conditions of soil and permitting the cultivation of corn when the ground is hard and dry. The scrapers are held to the discs by spring pressure. When not desiring to use them they can be thrown from the discs by a foot lever and are automatically locked in that position and can be applied to or thrown from the discs as often as desired without stopping the team. The shields are long and are adjustable in width. The axle is also adjustable. Leveling blades can be attached and are useful in many ways. They effectually crush the clods and leave the ground smooth and even. The arms are made of spring steel, are adjustable and can be placed at almost any angle.



MAY

MOON'S PHASES.

	BOSTON			NEW YORK			CHICAGO					
	D.	H.	M.	D.	H.	M.	D.	H.	M.			
F. Q.	5	8	14	M	5	8	14	M	5	7	14	M.
F. M.	13	1	10	M.	13	1	10	M	13	0	10	M.
L. Q.	21	4	23	M	21	4	23	M	21	3	23	M.
N. M.	28	1	24	M.	28	1	24	M	28	0	24	M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D.	D.	Historical Events.									
M.	W.										

1	M	St. Philip and St. James
2	Tu	Battle of Lutzen, 1813
3	W	♂♂♂. Johann Strauss d. 1899
4	Th	♂♂♂ stationary
5	Fr	♂♂♂ 5th. ♂♂♂ inferior
6	Sa	♂ in ♀. Humboldt died, 1859

4	57	6	58	10	55	5	0	6	54	10	48	5	14	6	41	10	21
4	56	6	59	morn	4	59	6	55	11	55	5	13	6	41	11	27	
4	54	7	0	0	2	4	58	6	57	morn	5	12	6	42	morn		
4	53	7	1	0	56	4	57	6	58	0	50	5	11	6	43	0	24
4	51	7	2	1	38	4	55	6	59	1	33	5	10	6	43	1	11
4	50	7	3	2	10	4	54	7	0	2	6	5	9	6	44	1	49

19. 3d Sunday after Easter. John 16. Day's Length, 14h. 15m.—14h. 8m.—13h. 37m.

7	S	Ward H. Lamont died, 1893		4	49	7	4	2	36	4	53	7	1	2	33	5	8	6	45	2	22
8	M	Eruption of Mt. Pelee, 1902		4	48	7	6	2	59	4	52	7	2	2	57	5	8	6	45	2	52
9	Tu	Pacific Railway opened, 1869		4	46	7	7	3	20	4	50	7	3	3	20	5	7	6	46	3	19
10	W	♂♂♂. H. M. Stanley d., 1904		4	45	7	8	3	39	4	49	7	4	3	40	5	6	6	47	3	45
11	Th	♂♂♂. Minnesota adm., 1858		4	44	7	9	3	59	4	48	7	5	4	1	5	5	6	48	4	12
12	Fr	 in ♀		4	43	7	10	4	21	4	47	7	6	4	24	5	4	6	48	4	40
13	Sa	 13th. Vienna taken, 1809		1	42	7	11	rises		4	46	7	7	rises		5	3	6	49	rises	

20. 4th Sunday after Easter. John 16. Day's Length, 14h. 31m.—14h. 23m.—13h. 47m.

14	S	Pullman Strike, 1894		4	41	7	12	8	59	4	45	7	8	8	53	5	3	6	50	8	28
15	M	☿ in apogee		4	40	7	13	10	0	4	44	7	9	9	53	5	2	6	51	9	26
16	Tu	♂ in aphelion		4	39	7	14	10	53	4	43	7	10	10	46	5	1	6	51	10	18
17	W	♂ stationary		4	38	7	15	11	40	4	42	7	11	11	33	5	0	6	52	11	6
18	Th	♂♂♂. Geo. Meredith d., 1909		4	37	7	16	morn		4	41	7	12	morn		5	0	6	53	11	48
19	Fr	H. H. Rogers died, 1909		4	36	7	17	0	19	4	40	7	13	0	13	4	59	6	54	morn	
20	Sa	Dewey leaves Manila, 1899		4	35	7	18	0	52	4	40	7	13	0	47	4	59	6	54	0	27

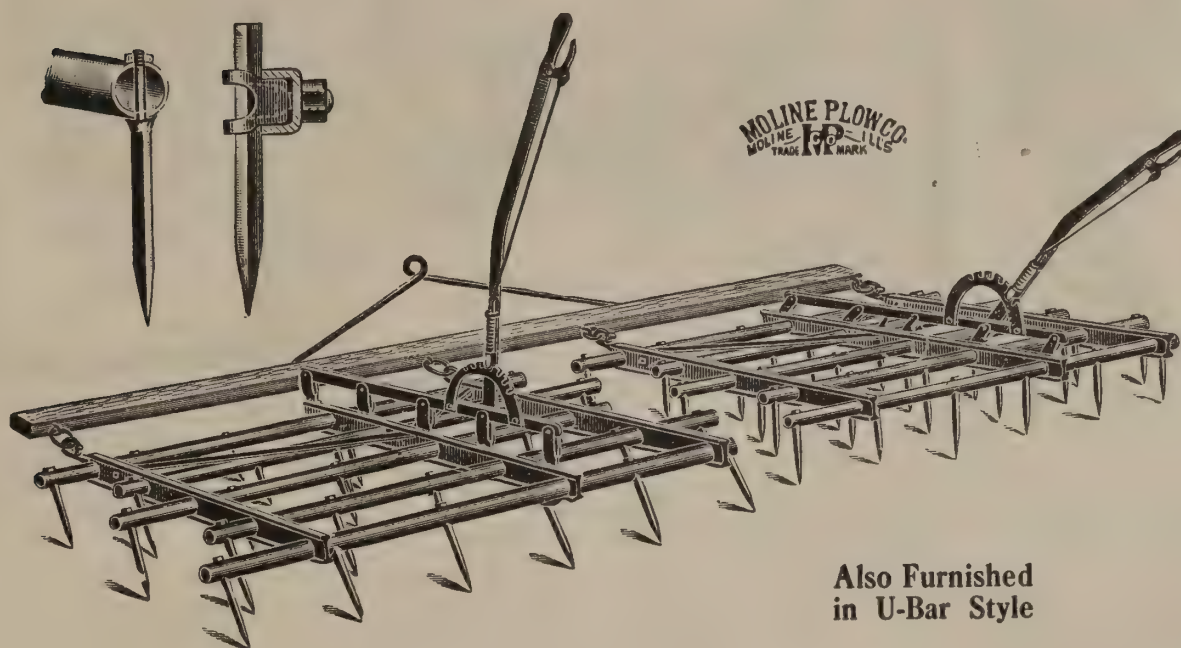
21. Rogation Sunday. John 16. Day's Length, 14h. 45m.—14h. 35m.—13h. 57m.

21	S	♂♂♂ 21st. ♀ gr. hel. lat. N.	4	34	7	19	1	20	4	39	7	14	1	16	4	58	6	55	1	2
22	M	♂♂♂	4	33	7	20	1	44	4	38	7	15	1	41	4	57	6	56	1	32
23	Tu	Henrik Ibsen died, 1906	4	32	7	21	2	6	4	37	7	16	2	5	4	57	6	56	2	1
24	W	Queen Victoria born, 1819	4	31	7	22	2	28	4	36	7	17	2	28	4	56	6	57	2	30
25	Th	Ascension Day	4	30	7	23	2	51	4	35	7	18	2	53	4	56	6	58	3	0
26	Fr	♂♂♂: ♂♂♂: ♂ in ♀	4	30	7	24	3	17	4	35	7	19	3	20	4	56	6	58	3	34
27	Sa	Russian Navy defeated, 1905	4	29	7	25	3	47	4	34	7	20	3	51	4	55	6	59	4	11

22. Sunday after Ascension. John 15-16. Day's Length, 14h. 57m.—14h. 47m.—14h. 5m.

28	S	 28th ☾ in perigee		4	29	7	26	sets		4	34	7	21	sets		4	55	7	0	sets
29	M	♂ ♀ ♀		4	28	7	27	9 44		4	33	7	21	9 37		4	54	7	0	9 9
30	Tu	Decoration Day		4	27	7	27	10 46		4	33	7	22	10 39		4	54	7	1	10 12
31	W	A Steinheil murdered, 1909		4	27	7	28	11 35		4	32	7	23	11 29		4	53	7	1	11 6

STEEL PIPE AND U-BAR HARROW



Also Furnished
in U-Bar Style

THESE Harrows have attained a wide reputation for strength, durability, ease of handling, and adaptability for various kinds of work. The sections are made with thirty or thirty-five square steel teeth,

as may be desired, and can be so connected as to make harrows of sixty, seventy, ninety, one hundred and five, one hundred and twenty, and one hundred and forty teeth.

MOLINE WOOD LEVER HARROW



THE Moline Wood Lever Harrow is of particularly strong construction. The wood bars are of best grade of oak, while steel is used for parts generally made of malleable. In fact the entire harrow is of steel excepting the wood bars and draft hooks. This construction insures more years of usefulness for the harrow. Other wood frame harrows, when worked in two or more sections, leave a small strip of uncultivated soil between the sections. We use eighty-six teeth in a two-section harrow, and they are arranged

to stir the entire surface, overcoming this defect in other makes. This is an important feature and should not be overlooked by purchasers of harrows of this style.

When moving the harrow from field to field the steel end bars act as runners, protecting the wood bars and also lessening the liability of gathering trash.

We also make flexible steel harrows, and can furnish the Steel Pipe and U-Bar Harrows with end guards when so ordered.



JUNE

MOON'S PHASES.

	BOSTON			NEW YORK			CHICAGO		
	D.	H.	M.	D.	H.	M.	D.	H.	M.
F. Q.	3	5	4 A.	3	5	4 A.	3	4	4 A.
F. M.	11	4	51 A.	11	4	51 A.	11	3	51 A.
L. Q.	19	3	51 A.	19	3	51 A.	19	2	51 A.
N. M.	26	8	20 M.	26	8	20 M.	26	7	20 M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D.	D.	Historical Events.									
M.	W.										

1	Th	♂ gr. elong. W., 24° 30'	4	26	7	29	morn	4	32	7	24	morn	4	53	7	2	11	48
2	Fr	Garibaldi died, 1882	4	26	7	30	0 11	4	31	7	24	0 6	4	53	7	3	morn	
3	Sa	♂ gr. libration W.	4	25	7	30	0 39	4	30	7	25	0 36	4	52	7	3	0 23	

23. Pentecost—Whit Sunday. John 14. Day's Length, 15h. 6m.—14h. 56m.—14h. 12m.

4	S	Pentecost Sunday	4	25	7	31	1 3	4	30	7	26	1 1	4	52	7	4	0 54
5	M	Oil City Disaster, 1892	4	24	7	32	1 25	4	30	7	27	1 24	4	52	7	4	1 22
6	Tu	♂ gr. hel. lat. S.: ♂ gr. hel. lat. S.	4	24	7	33	1 45	4	29	7	27	1 46	4	52	7	5	1 49
7	W	♂ ♀. Edwin Booth died, 1893	4	24	7	33	2 4	4	29	7	28	2 6	4	52	7	5	2 14
8	Th	♂ in ♀. Norway seceded, 1905	4	23	7	34	2 25	4	29	7	28	2 28	4	51	7	6	2 42
9	Fr	Levi Z. Leiter died, 1904	4	23	7	35	2 50	4	29	7	29	2 54	4	51	7	6	3 13
10	Sa	Steamer Slavonia wrecked, 1909	4	23	7	35	3 17	4	28	7	30	3 22	4	51	7	7	3 46

24. Trinity Sunday. John 3. Day's Length, 15h. 14m.—15h. 2m.—14h. 16m.

11	S	♂ in apogee	4	22	7	36	rises	4	28	7	30	rises	4	51	7	7	rises
12	M	Earthquake in India, 1897	4	22	7	36	8 48	4	28	7	31	8 41	4	51	7	8	8 13
13	Tu	War Revenue Bill signed, 1898	4	22	7	37	9 38	4	28	7	31	9 31	4	51	7	8	9 4
14	W	♂ ♀. Arnold died, 1801	4	22	7	37	10 19	4	28	7	32	10 13	4	51	7	8	9 48
15	Th	Corpus Christi	4	22	7	38	10 53	4	28	7	32	10 48	4	51	7	9	10 26
16	Fr	Gen. Bobrikoff shot, 1904	4	22	7	38	11 22	4	28	7	32	11 18	4	51	7	9	11 1
17	Sa	Gen. Gomez died, 1905	4	22	7	38	11 47	4	28	7	33	11 44	4	51	7	9	11 33

25. 1st Sunday after Trinity. Luke 16. Day's Length, 15h. 17m.—15h. 5m.—14h. 19m.

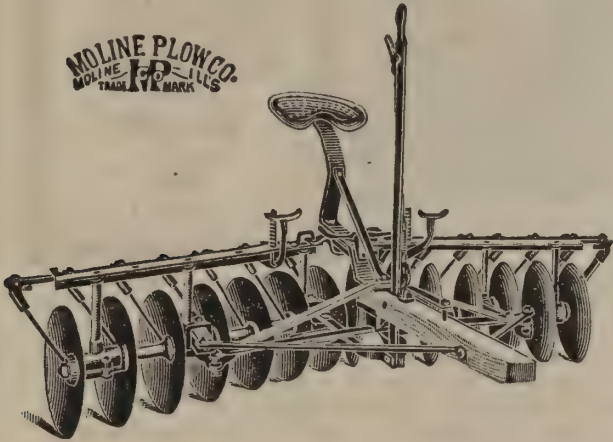
18	S	Hazen S. Pingree died, 1901	4	22	7	39	morn	4	28	7	33	morn	4	51	7	10	morn
19	M	♂ gr. libration E.	4	22	7	39	0 9	4	28	7	33	0 7	4	51	7	10	0 1
20	Tu	♂ ♀	4	23	7	39	0 30	4	28	7	34	0 30	4	52	7	10	0 29
21	W	Franz von Suppe died, 1895	4	23	7	40	0 51	4	28	7	34	0 52	4	52	7	11	0 57
22	Th	♂ enters ♄. Summer begins	4	23	7	40	1 15	4	29	7	34	1 17	4	52	7	11	1 29
23	Fr	♂ ♀. Ship Victoria sunk, 1893	4	23	7	40	1 43	4	29	7	34	1 47	4	52	7	11	2 4
24	Sa	St. John, Baptist	4	23	7	40	2 17	4	29	7	35	2 22	4	52	7	11	2 45

26. 2d Sunday after Trinity. Luke 14. Day's Length, 15h. 16m.—15h. 6m.—14h. 18m.

25	S	♂ in ♀: ♂ ♀ ♀: ♀ in perigee	4	24	7	40	3 0	4	29	7	35	3 6	4	53	7	11	3 34
26	M	♂ 26th. D. Davis d. 1886	4	24	7	40	sets	4	30	7	35	sets	4	53	7	11	sets
27	Tu	♂ ♀ ♀	4	24	7	40	9 24	4	30	7	35	9 18	4	53	7	11	8 52
28	W	Steamer Norge wrecked, 1904	4	25	7	40	10 7	4	30	7	35	10 2	4	54	7	12	9 41
29	Th	♂ ♀ ♀. St. Peter and St. Paul	4	25	7	40	10 40	4	31	7	35	10 36	4	54	7	12	10 21
30	Fr	German Lloyd Co. Fire, 1900	4	25	7	40	11 6	4	31	7	35	11 4	4	54	7	12	10 54

ECONOMY DISC HARROW

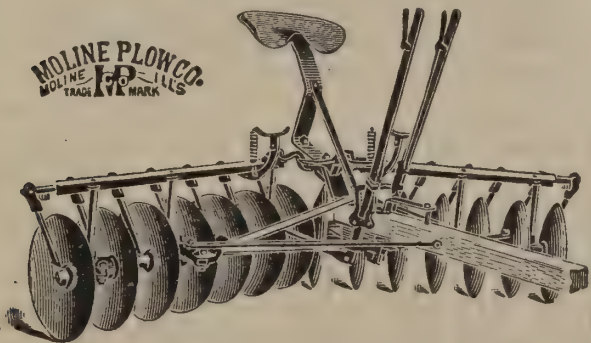
WE do not hesitate to assert that the Economy Disc Harrow has not an equal in the market, and in this statement are corroborated by the expert judgment of thousands upon thousands of the most



particular and exacting farmers of this and other countries. This popularity was not attained by accident. Such success can be achieved by nothing but merit, actual demonstration of better work in the field under the varying conditions that confront the average farmer. In heavy corn stalks the Economy will show more black dirt than any of them.

The line of draft is right. The horses are not choked by a low hitch, neither are their necks made sore by a high hitch. The seat is so placed that there is almost perfect balance. We have seen the Economy run all around a rough field without the use of a neckyoke at all. The man who values his horses appreciates this.

The frame bars are of high carbon steel, as stiff and hard as can be worked in a blacksmith shop. The discs are heavy, with long, sharp bevel, nicely polished and sharpened. The spools have a large face that acts as a brace for center of disc and prevents breakage in rough work. The harrow has great flexibility and readily adapts itself to uneven ground. One section may override obstructions or dip into dead furrows without affecting the work of the other section. The gangs cut a uniform depth their entire length. The bearings are of hard maple, with double surface to meet the end wear.



ECONOMY WITH DOUBLE LEVER.

A patent spring device gives both inside and outside bearings an equal amount of end thrust. By using this device it is unnecessary to have any contact between the inner ends of disc gangs, thus insuring greater flexibility, less friction and lighter draft. The

scrapers are the most satisfactory to be found on any disc harrow. The openings in the brackets are so shaped as to admit of the scraper bar being rocked back and forth with the foot levers, thus forcing the blades to sweep the entire face of the discs from center to edge. The scraper is always held firmly against the face of the disc.

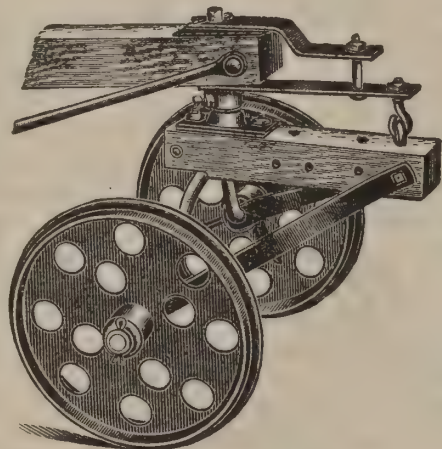
The standards are made of steel pipe, which also serve as oil tubes. By placing a small quantity of cotton waste well down in the tube and then filling the tube with oil insures a constant supply of fine filtered oil. The waste holds the oil, preventing the supply entering the bearings more freely than necessary. With the round standards the harrow is less liable to clog than harrows with other styles of standards.

The Economy is made in cut-out style for those who prefer a tool of that kind. It is of the same general construction as the regular Economy, the only difference being the cut-out discs, and scrapers adapted to use with that style of disc.

ECONOMY TONGUE TRUCK NO. 2

THE Economy Tongue Truck No. 2 is a light, inexpensive and durable attachment, highly endorsed by farmers who prefer to use truck equipment on their disc harrows.

The axle is made of fine steel of high carbon. The wheels are cast and have chilled hubs, which make a



hard, smooth bearing. They have a flange that causes them to hold to the ground without any side-slipping, thus overcoming an objection often raised to wheels with smooth tires. The axle ends are provided with chilled sleeves, practically wear-proof, which prevent the wheel hubs from coming in direct contact with the axle, thus relieving the axle of all wear.

The truck is provided with ball and socket pivot, which allows it to adapt itself to uneven ground without throwing the entire strain on one wheel. The truck is adjustable to different sizes of harrows as well as to different sizes of discs.

The truck carries the tongue weight of the harrow and does away with the whipping of the tongue when working on rough ground. Our tongueless truck guides the harrow perfectly. We do not depend upon set screws to hold the truck axle in line of travel. The axle is arched to give good clearance over corn ridges.

The Economy Tongue Truck can be used in three different combinations, viz: As a tongueless truck; as a truck with straight tongue; and as a truck with set-over tongue.

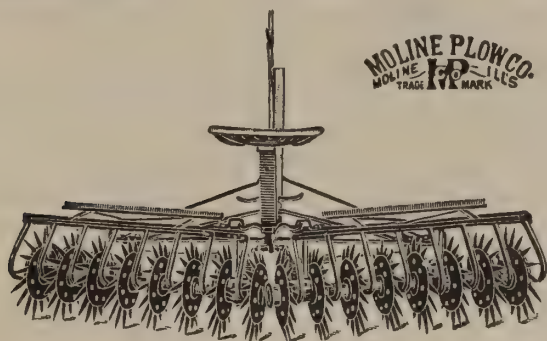


MOON'S PHASES.						MOON'S SIGNS	LATITUDE			LATITUDE			LATITUDE													
BOSTON			NEW YORK				CHICAGO			Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon.			Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illi- nois, Neb. and Cal.			Of Charleston; N. and S. Car., Ga. Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.										
F. Q.	D. H. M.		F. Q.	D. H. M.			F. Q.	D. H. M.		Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets								
F. M.	3	4 20 M.	F. M.	3	4 20 M.		F. M.	3	3 20 M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.								
L. Q.	19	0 31 M.	L. Q.	19	0 31 M.		L. Q.	18	11 31 A.																	
N. M.	25	3 12 A.	N. M.	25	3 12 A.	N. M.	25	2 12 A.																		
D. M.	D. W.	Historical Events.																								
I	Sa	♂ in perihelion					♏	4	26	7	40	II	29	4	32	7	35	II	28	4	54	7	12	II	24	
27. 3d Sunday after Trinity. Luke 15 Day's Length, 15h. 14m.—15h. 3m.—14h. 17m.																										
2	S	Pres. Garfield shot, 1881	♏	4	26	7	40	II	50	4	32	7	35	II	50	4	55	7	12	II	52					
3	M	3d. ⊕ in aphelion	♏	4	27	7	40	morn		4	33	7	35	morn		4	55	7	12	morn						
4	Tu	Independence Day	♏	4	27	7	40	0	10	4	33	7	34	0	11	4	56	7	12	0	18					
5	W	♂ ♀ ♄: ♄ in ♍	♏	4	28	7	40	0	31	4	34	7	34	0	34	4	56	7	12	0	46					
6	Th	Aguinaldo released, 1902	♏	4	29	7	40	0	53	4	34	7	34	0	57	4	57	7	11	1	14					
7	Fr	♀ gr. elong. E., 45° 29'	♏	4	29	7	40	1	19	4	35	7	34	1	24	4	57	7	11	1	46					
8	Sa	♂ ♀ ♄: ♄ in apogee	♏	4	30	7	39	1	51	4	36	7	33	1	57	4	58	7	11	2	23					
28. 4th Sunday after Trinity. Luke 6. Day's Length, 15h. 9m.—14h. 56m.—14h. 13m.																										
9	S	Braddock defeated, 1755	♏	4	30	7	39	2	29	4	37	7	33	2	36	4	58	7	11	3	5					
10	M	♀ gr. hel. lat. N.	♏	4	31	7	38	3	14	4	37	7	33	3	21	4	59	7	11	3	51					
11	Tu	11th. S. Newcomb d. 1909	♏	4	32	7	38	rises		4	38	7	32	rises		4	59	7	10	rises						
12	W	♂ ♀ ♄	♏	4	33	7	38	8	56	4	38	7	32	8	50	5	0	7	10	8	28					
13	Th	Prendergast executed, 1894	♏	4	33	7	37	9	26	4	39	7	32	9	21	5	0	7	10	9	3					
14	Fr	♂ ♀ ♄, Paul Kruger died, 1904	♏	4	34	7	37	9	52	4	40	7	31	9	49	5	1	7	9	9	36					
15	Sa	Cawnpore Massacre, 1857	♏	4	35	7	36	10	15	4	40	7	31	10	13	5	1	7	9	10	5					
29. 5th Sunday after Trinity. Luke 5. Day's Length, 14h. 59m.—14h. 49m.—14h. 7m.																										
16	S	♀ in ♍. Mrs. Lincoln d., 1882	♏	4	36	7	35	10	35	4	41	7	30	10	34	5	2	7	9	10	32					
17	M	♄ gr. libration E.	♏	4	36	7	35	10	55	4	42	7	29	10	56	5	3	7	8	10	59					
18	Tu	18th. Don Carlos d., 1909	♏	4	37	7	34	11	17	4	43	7	29	11	19	5	3	7	8	11	28					
19	W	19th. ♂ ♀ ♄: ♄ in ♎	♏	4	38	7	34	11	42	4	43	7	28	11	45	5	4	7	7	morn						
20	Th	♂ ♀ ♄. Pope Leo XIII. d. 1903	♏	4	39	7	33	morn		4	44	7	27	morn		5	5	7	7	0	0					
21	Fr	♂ ♀ ♄. Bish. Potter died, 1908	♏	4	40	7	32	0	12	4	45	7	27	0	17	5	5	7	6	0	37					
22	Sa	Toyoka Mine Disaster, 1907	♏	4	41	7	31	0	50	4	46	7	26	0	56	5	6	7	6	1	21					
30. 6th Sunday after Trinity. Matt. 5. Day's Length, 14h. 48m.—14h. 38m.—13h. 58m.																										
23	S	Daniel Lamont died, 1905	♏	4	42	7	30	1	39	4	47	7	25	1	46	5	7	7	5	2	15					
24	M	♂ ♀ ♄: ♄ in perigee	♏	4	43	7	29	2	42	4	48	7	24	2	49	5	7	7	5	3	19					
25	Tu	25th. St. James	♏	4	44	7	29	sets		4	48	7	23	sets		5	8	7	4	sets						
26	W	Coleridge died, 1834	♏	4	45	7	28	8	35	4	49	7	22	8	31	5	8	7	4	8	12					
27	Th	♂ ♀ ♄. Sen. Pettus died, 1907	♏	4	46	7	27	9	4	4	50	7	22	9	1	5	9	7	3	8	49					
28	Fr	♂ ♀ ♄. M. Montefiore d., 1885	♏	4	47	7	26	9	29	4	51	7	21	9	27	5	10	7	2	9	21					
29	Sa	□ ♀ ♄. Poland dissolved, 1794	♏	4	48	7	25	9	52	4	52	7	20	9	52	5	10	7	1	9	51					
31. 7th Sunday after Trinity. Mark 8. Day's Length, 14h. 35m.—14h. 26m.—13h. 50m.																										
30	S	♄ gr. libration W.	♏	4	49	7	24	10	13	4	53	7	19	10	14	5	11	7	1	10	19					
31	M	Fire at Osaka, Japan, 1909	♏	4	50	7	23	10	34	4	54	7	18	10	36	5	12	7	0	10	47					

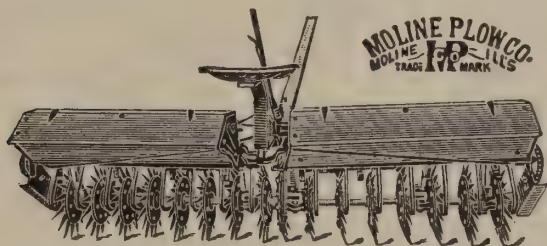
MOLINE ALFALFA RENOVATOR

TO keep an alfalfa field in good condition it must be cultivated at least once each season. The most successful and experienced growers cultivate after each cutting. The latter practice is growing in favor as alfalfa raisers progress in knowledge and become better acquainted with the peculiarities of the plant and the conditions and treatment that produce the best results.

Unlike many grasses the alfalfa plant has no creeping roots. It becomes thicker on the ground by increasing the size of the crown, which means to add more growing stalks or branches to the top of the plant. The crowns grow to such size that the sod becomes very compact, causing the plant to die out in spots, and permitting weeds to gain a foothold in the field. The remedy for this condition, as well as a preventive, is thorough cultivation, with a tool that will split the crowns vertically.



The Moline Alfalfa Renovator has a greater penetration than any similar tool built. This penetration is secured by the peculiar slant given the teeth. By means of the center lever the gangs can be set at any desired angle. The toothed heads are provided with scrapers to prevent the accumulation of trash. The frame bars are stiff and hard. Has pipe standards that serve as oil tubes. Should it be desired to add more weight, provision has been made for carrying sacks of soil.

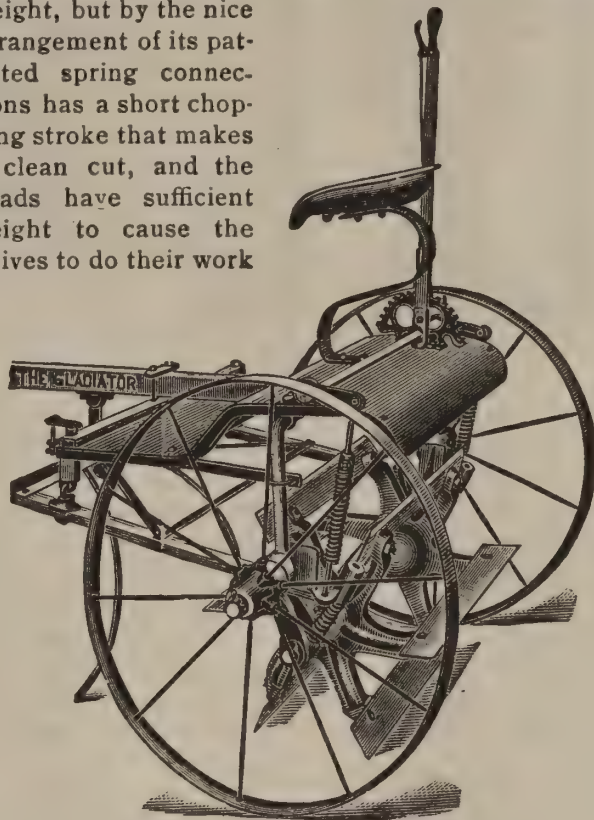


MOLINE ALFALFA RENOVATOR, WITH SEEDER ATTACHMENT

The seeder attachment with which this tool can be equipped at a slight additional charge has a thoroughly reliable force feed and can be regulated to plant from four to thirty-two pounds of seed per acre. This attachment is used for the original planting, or for re-seeding the thin places when renovating an old field. It can be thrown in or out of gear at pleasure when the renovator is in motion. Larger yields are secured where this tool is used and sickly fields are rejuvenated and made to produce luxuriantly.

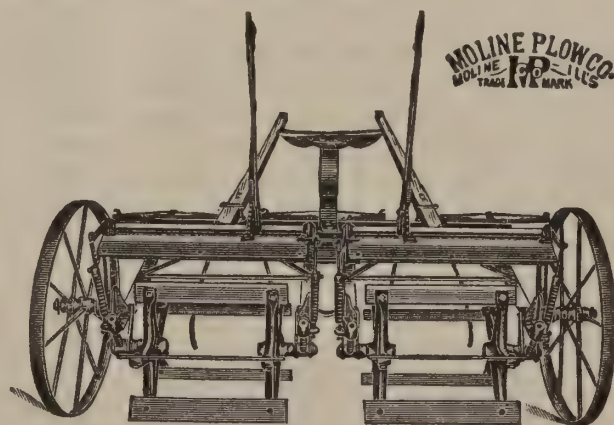
GLADIATOR STALK CUTTER

THE Gladiator does not do its work by main strength and awkwardness, like some horse-killing machines that depend upon their immense weight, but by the nice arrangement of its patented spring connections has a short chopping stroke that makes a clean cut, and the heads have sufficient weight to cause the knives to do their work



under all conditions of soil. This feature, in connection with the S-shape seat spring, makes the Gladiator a remarkably easy riding cutter.

The knife heads are made in crank-hinged bearings. Spindles and boxes are removable. This is a feature of greatest importance in stalk cutters, as, to replace a worn head is quite an expense, while with the Gladiator it is done at small cost.



DOUBLE ROW GLADIATOR

The double row Gladiator possesses all the valuable points of the single row. It has two heads, cuts two rows at a time with three horses, and does the work as well as the single row. Each half of the machine is independent of the other and has its own lever with which to throw the weight of the operator and machine on the knives, or one head can be raised while the other is at work. These machines can be equipped with spiral, instead of straight knives, when so ordered.



AUGUST

MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
F. Q.	1 6 29 A.	1 6 29 A.	1 5 29 A.
F. M.	9 9 55 A.	9 9 55 A.	9 8 55 A.
L. Q.	17 7 11 M.	17 7 11 M.	17 6 11 M.
N. M.	23 11 14 A.	23 11 14 A.	23 10 14 A.
F. Q.	31 11 21 M.	31 11 21 M.	31 10 21 M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D. M.	D. W.	Historical Events.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.
1	Tu	1st. ☿♄: ☿ in ♊	4 51	7 21	10 55	4 55	7 17	10 58	5 12	6 59	11 14
2	W	☿ in ♊	4 52	7 20	11 20	4 56	7 16	11 25	5 13	6 58	11 45
3	Th	Standard Oil Co. fined, 1907	4 53	7 19	11 50	4 57	7 15	11 56	5 14	6 57	morn
4	Fr	Sen. Wm. B. Allison died, 1908	4 54	7 17	morn	4 58	7 14	morn	5 15	6 57	0 21
5	Sa	☿ in apogee	4 55	7 16	0 26	4 59	7 12	0 32	5 15	6 56	1 1

32. 8th Sunday after Trinity. Matt. 7. Day's Length, 14h. 19m.—14h. 11m.—13h. 39m.

6	S	Wm. Kemmler executed, 1890	4 56	7 15	1 9	5 0	7 11	1 16	5 16	6 55	1 46
7	M	Gen. Miles retired, 1903	4 57	7 14	2 0	5 1	7 10	2 7	5 17	6 54	2 37
8	Tu	♄♄. A. Sutro died, 1898	4 58	7 12	2 59	5 2	7 9	3 5	5 17	6 53	3 34
9	W	9th. ☿♄☿	4 59	7 11	rises	5 3	7 8	rises	5 18	6 52	rises
10	Th	♀ greatest brilliancy	5 0	7 10	7 56	5 4	7 6	7 52	5 19	6 51	7 38
11	Fr	Lopez in Cuba, 1857	5 1	7 8	8 19	5 5	7 5	8 17	5 19	6 50	8 7
12	Sa	☿ in aphelion	5 2	7 7	8 40	5 5	7 4	8 39	5 20	6 49	8 35

33. 9th Sunday after Trinity. Luke 16. Day's Length, 14h. 3m.—13h. 56m.—13h. 27m.

13	S	☿ gr. elong. E., 27° 26': ☿♄☿	5 3	7 6	9 1	5 6	7 2	9 1	5 21	6 48	9 3
14	M	Jeffries defeated Corbett, 1903	5 4	7 4	9 22	5 7	7 1	9 24	5 21	6 47	9 31
15	Tu	☿ in ♋. Battle of Ft. Erie, 1813	5 5	7 3	9 45	5 8	7 0	9 48	5 22	6 46	10 1
16	W	♄♄h. J. J. Ingalls died, 1900	5 6	7 1	10 13	5 9	6 58	10 17	5 23	6 45	10 36
17	Th	17th. ☿♄☿: ☿♄☿	5 7	7 0	10 47	5 10	6 57	10 52	5 24	6 44	11 17
18	Fr	Adm. Evans retired, 1908	5 8	6 58	11 30	5 11	6 55	11 36	5 24	6 43	morn
19	Sa	S. F. Baird died, 1887	5 9	6 57	morn	5 12	6 54	morn	5 25	6 42	0 5

34. 10th Sunday after Trinity. Luke 19. Day's Length, 13h. 44m.—13h. 40m.—13h. 15m.

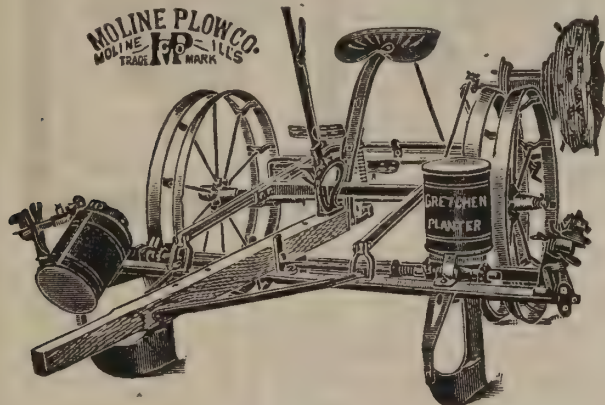
20	S	♀ in aphelion	5 11	6 55	0 25	5 13	6 53	0 32	5 26	6 41	1 3
21	M	♄♄☿: ☿ in perigee	5 12	6 54	1 33	5 14	6 51	1 40	5 26	6 40	2 9
22	Tu	♀ stat. Salisbury died, 1903	5 13	6 52	2 50	5 15	6 50	2 56	5 27	6 39	3 22
23	W	23d. Com. Perry d. 1820	5 14	6 51	sets	5 16	6 48	sets	5 28	6 37	sets
24	Th	St. Bartholomew	5 15	6 49	7 30	5 17	6 47	7 28	5 28	6 36	7 19
25	Fr	♄♀☿: ☿♄☿	5 16	6 48	7 53	5 18	6 45	7 52	5 29	6 35	7 49
26	Sa	♀ stat. Castelar elected, 1873	5 17	6 46	8 14	5 19	6 44	8 14	5 30	6 34	8 17

35. 11th Sunday after Trinity. Luke 18. Day's Length, 13h. 26m.—13h. 22m.—13h. 2m.

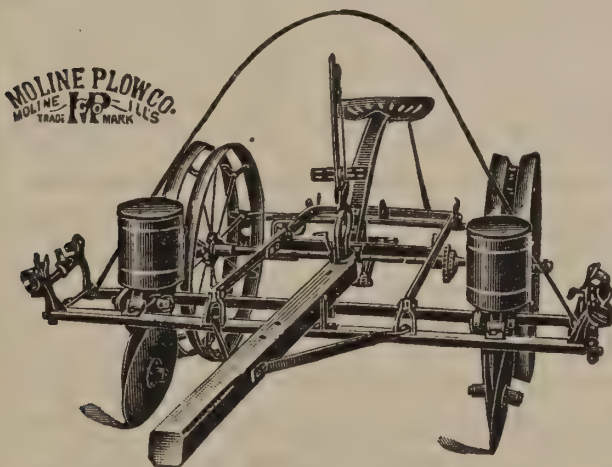
27	S	Flood at Monterey, 1909	5 18	6 44	8 35	5 20	6 42	8 37	5 30	6 32	8 45
28	M	☿ in ♋. F. C. Ives died, 1899	5 19	6 43	8 57	5 21	6 41	9 0	5 31	6 31	9 14
29	Tu	♄♄☿. E. Cowan died, 1885	5 20	6 41	9 21	5 22	6 39	9 25	5 32	6 30	9 44
30	W	R. Mansfield died, 1907	5 21	6 40	9 49	5 23	6 37	9 54	5 32	6 29	10 18
31	Th	31st. Camoens born, 1567	5 22	6 38	10 22	5 24	6 36	10 28	5 33	6 27	10 56

GRETCHEN COMBINED CORN PLANTER

THE Gretchen can be operated both as a hill drop and drill drop planter. It meets the demand for a thoroughly reliable combined planter. No expense has been spared to make it a first class machine in every detail. It has a neat, strong steel front and



back, and is easily adjusted from 3 feet 4 inches to 3 feet 6 inches, 3 feet 8 inches and 3 feet 10 inches in width. It can be equipped with either split, flat or concave wheels. Three different sizes of hill drop plates are furnished. There are also three sizes of oval-hole hill drop plates. The cut-off and knocker are combined, operating as a stop to prevent the seed plates turning backward either from the jar of the planter or the backward motion of the driving dogs. The valve is very simple. There is no scattering of the corn. The check heads have a rear sheave which holds down the wire, compelling the check fork to always make a full stroke. The wire is securely held by the sheaves on all sides and cannot possibly slip out in hilly ground. The driving shaft, to which the check forks and driving dogs are attached, is hexagonal, making it impossible for them to slip.

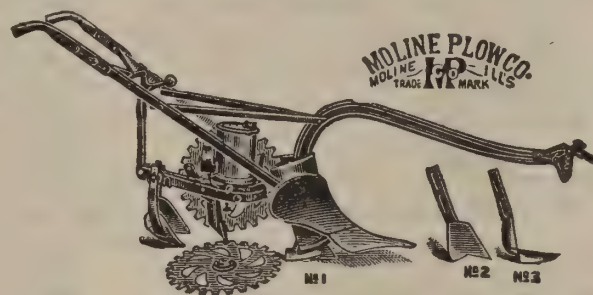


The Gretchen is also made in disc style, as shown above, and is a popular planter among farmers who prefer a tool of that type.

PURITAN LISTER AND DRILL

THE Puritan Combined Lister and Drill is an implement possessing many exclusive and valuable features. The bottom is made of the finest soft center

hardened steel, and will scour in the most obstinate soil. The beam has the same graceful shape and is of the same material as our best standard plows. A shield, or extension, is fastened above the moldboard to prevent corn stalks or trash from passing over the same and interfering with the operating wheels. The handles are made of light steel, well braced, with hollow, malleable ends, and are adjustable both as to height and length. The Puritan is provided with a floating seed box, which is attached in such a manner as to allow the drill and covering shovels to act independently of each other and also of the plow, which insures an even depth of planting, and even amount of covering. The lever by which the seeder is raised is a very simple and convenient device. To raise or lower the seeder the lever is simply thrown over center. The covering shovels are small, well shaped shovel plows, and are adjustable up and down or at any desired angle, and made with a break pin. Any one of three subsoilers can be furnished. These are shown in the cut. No. 1 is the regular subsoiler; No. 2 is the same as is used on the Western Belle Riding Lister. All three of these are excellent attachments. The seed spout is furnished with a small steel shovel, which when worn can easily be replaced at small expense. It follows directly after the subsoiler and always plants the corn in finely pulverized soil. The upper part of seed tube is made funnel shape, which



admits of the operator watching the corn drop into same at all times. The wheels operate on the dropping mechanism direct, which is the best dropping device ever invented. The distance between the kernels is regulated by dropping plates having different numbers of holes.

Three of these plates, arranged to drop about 14, 16 and 20 inches apart, are furnished with each drill. Our plates are made with holes of proper size to accommodate the size of kernels commonly planted, but if any planter has extra large kernal corn he should first try it in the field, and if he finds that any of the kernels do not go through readily, he should take a round file and enlarge the holes in the plate he intends to use (making them a little oblong) until he finds that the kernels go through without difficulty or danger of failing to drop regularly. The illustration shows right wheel removed for the purpose of giving an unobstructed view of the working parts of the tool.

The Puritan can be furnished as a one-horse drill, the extra parts required being a pair of handles, gauge wheel, two straps and the clevis which are easily attached and furnished at small cost.



MOON'S PHASES.

	BOSTON		NEW YORK		CHICAGO	
	D.	H. M.	D.	H. M.	D.	H. M.
F. M.	8	10 57 M.	8	10 57 M.	8	9 57 M.
L. Q.	15	0 51 A.	15	0 51 A.	15	11 51 M.
N. M.	22	9 37 M.	22	9 37 M.	22	8 37 M.
F. Q.	30	6 8 M.	30	6 8 M.	30	5 8 M.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D.	D.			Sun	Sun	Moon	Sun	Sun	Moon	Sun	Sun	Moon
M.	W.	Historical Events.		rises	sets	sets	rises	sets	sets	rises	sets	sets
				H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Fr	Lopez garroted, 1851	☾	5 23	6 36	11 2	5 25	6 34	11 9	5 34	6 26	11 39
2	Sa	♂ gr. hel. lat. S.: ♄ in apogee ☾	♄	5 24	6 34	11 51	5 26	6 32	11 58	5 34	6 25	morn

36. 12th Sunday after Trinity. Mark 7. Day's Length, 13h. 8m.—13h. 4m.—12h. 49m.

3	S	♄ stationary	☾	5 25	6 33	morn	5 27	6 31	morn	5 35	6 24	0 29
4	M	♂♂♄. Clyde Fitch died, 1909	☾	5 26	6 31	0 47	5 28	6 29	0 54	5 36	6 22	1 23
5	Tu	Portsmouth Treaty signed, 1905	♄	5 27	6 29	1 50	5 29	6 28	1 56	5 36	6 21	2 22
6	W	Pres McKinley shot, 1901	♄	5 28	6 28	2 57	5 30	6 27	3 2	5 37	6 20	3 24
7	Th	Battle of Belmont, 1861	♄	5 29	6 26	4 5	5 31	6 25	4 9	5 37	6 19	4 26
8	Fr	♄♄♄. ♄ gr. libration E.	♄	5 30	6 24	rises	5 32	6 23	rises	5 38	6 17	rises
9	Sa	♄♄♄ inferior	♄	5 32	6 23	7 6	5 33	6 21	7 6	5 39	6 16	7 5

37 13th Sunday after Trinity. Luke 10. Day's Length, 12h. 48m.—12h. 45m.—12h. 35m.

10	S	Gen. M'Cook shot, 1873	♄	5 33	6 21	7 28	5 34	6 19	7 29	5 39	6 14	7 34
11	M	♀ gr hel. lat S.: ♄ in ♄	♄	5 34	6 19	7 50	5 35	6 18	7 52	5 40	6 13	8 5
12	Tu	Gen. Walker shot, 1860	♄	5 35	6 17	8 16	5 36	6 16	8 20	5 41	6 12	8 38
13	W	♂♄♄. Jas. Lewis died, 1896	♄	5 36	6 16	8 47	5 37	6 15	8 52	5 41	6 11	9 15
14	Th	♂♄♄. McKinley died, 1901	♄	5 37	6 14	9 27	5 38	6 13	9 33	5 42	6 9	10 1
15	Fr	♄♄♄. ♄♄♄ inferior	♄	5 38	6 12	10 18	5 39	6 11	10 25	5 43	6 8	10 55
16	Sa	♄♄♄ Moscow burned, 1812 ♄	♄	5 39	6 10	11 20	5 40	6 9	11 27	5 43	6 6	11 58

38. 14th Sunday after Trinity. Luke 17. Day's Length, 12h. 29m.—12h. 27m.—12h. 21m.

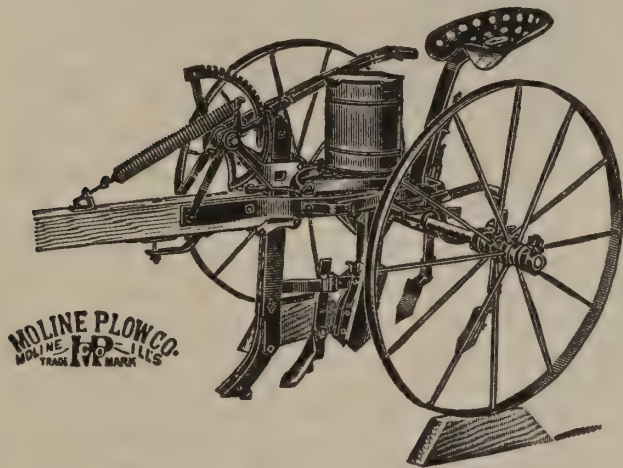
17	S	♄♄♄: ♄ stat.: ♄ in perigee	♄	5 40	6 9	morn	5 41	6 8	morn	5 44	6 5	morn
18	M	Herbert Bismarck died, 1904	♄	5 41	6 7	0 31	5 42	6 6	0 37	5 45	6 4	1 5
19	Tu	Pres. Garfield died, 1881	♄	5 42	6 5	1 48	5 43	6 5	1 53	5 45	6 3	2 16
20	W	♄♄♄. New York Panic, 1873	♄	5 43	6 3	3 7	5 44	6 3	3 11	5 46	6 1	3 28
21	Th	♄♄♄. St. Matthew	♄	5 44	6 2	4 22	5 45	6 1	4 24	5 46	6 0	4 36
22	Fr	♄♄♄. R. Hoe died, 1909	♄	5 45	6 0	sets	5 46	5 59	sets	5 47	5 58	sets
23	Sa	♄ enters ♄. Autumn begins	♄	5 47	5 58	6 36	5 47	5 58	6 37	5 48	5 57	6 43

39. 15th Sunday after Trinity. Matt. 6. Day's Length, 12h. 8m.—12h. 8m.—12h. 8m.

24	S	♄♄♄: ♄ in ♄	♄	5 48	5 56	6 58	5 48	5 56	7 0	5 48	5 56	7 13
25	M	♀ gr. elong. W., 17° 52'	♄	5 49	5 54	7 21	5 49	5 55	7 25	5 49	5 55	7 42
26	Tu	Lafcadio Hearn died, 1904	♄	5 50	5 52	7 47	5 50	5 53	7 52	5 50	5 53	8 14
27	W	Steamer Arctic lost, 1854	♄	5 51	5 51	8 18	5 51	5 51	8 24	5 50	5 52	8 50
28	Th	Thos. F. Bayard died, 1898	♄	5 52	5 49	8 55	5 52	5 49	9 2	5 51	5 50	9 31
29	Fr	♄♄♄. Michaelmas. ♄ in apogee	♄	5 53	5 47	9 41	5 53	5 48	9 48	5 51	5 49	10 19
30	Sa	♄♄♄. Sen. Hoar d., 1904 ♄	♄	5 54	5 45	10 35	5 54	5 46	10 42	5 52	5 48	11 12

DUCHESS COTTON AND CORN PLANTER

THE Duchess is made of high grade steel and malleable iron. Has a heavy steel frame. It is correctly balanced on the wheels and the hitch is so arranged that there is no neck weight. The bottom is always level when raised or lowered. Bottom can be raised when planter is at work—this is a decided advantage over other makes and can be accomplished only by our arrangement of lifting device. The wheels are high and strong and the distance between them may be varied to suit the nature of the work. Any shape of sweep can be used, and by the adjustment of the foot piece can be set at just the right angle for perfect results. The variation in styles of shapes and sweeps used makes the adjustment of foot piece of vital importance in any planter. The Duchess has five adjustments, giving great variation in pitch from highest to lowest

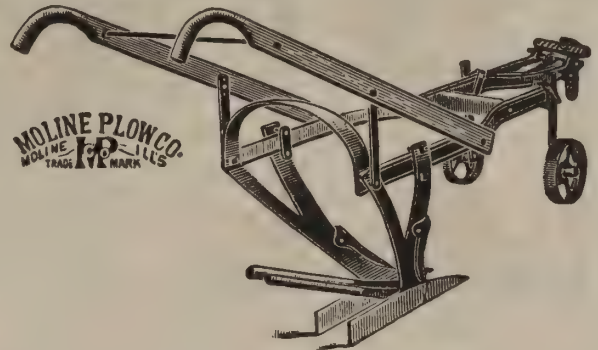


point, while the intermediate adjustments permit of changing the pitch to work any bottom at the angle desired. Can be used without sweep or middle-breaker, simply as a planter. The covering shovels are raised and lowered by means of an independent foot lever conveniently arranged. This is a very desirable feature, as the shovels can be raised independently of the middle breaker while the planter is in operation, thus clearing them of any trash that may have gathered around them. Axle is made of 1½-inch high carbon steel, and runs in chilled bearings that are practically indestructible. Can flat break, throw out middles, or break up trenches between rows. Can plant on top of the ridge or in the bottom of the trench—all changes for this scope of work can be made with one lever while going along.

MOLINE BEET PULLER

THE Moline Beet Puller is an implement which will impress the practical beet raiser with its simplicity and efficiency in drawing the beets from the ground without the possibility of cutting, bruising or otherwise injuring them. The pullers, or diggers, on the Moline Beet Puller are strongly shaped, with an

easy, downward curve and a straight runner, which permits of the implement being operated without strain at any part, and with ease both to the team and driver. These diggers are provided with chilled points, which add materially to the life of the implement and are a



great saving in the matter of repairs. They are detachable and can be taken off and replaced by any farmer without the aid of a blacksmith or other mechanic. These points are an important feature of this tool. The depth at which it is desired to run the digger can be regulated both by the gauge wheels and clevis. With the exception of the handles this implement is built entirely of steel. Notice chilled shins on standards in illustration. These chilled shins prevent standards from wearing and becoming weak. They are held by wooden pins, and can be replaced with little trouble or expense. No implement could be lighter, simpler or more easily handled than the Moline Beet Puller. Is equipped with lifting rods shown in cut. These rods are adjustable. Can also be equipped with rolling coulters, which are an advantage when the tops are unusually heavy.



The riding attachment shown here can be used on any of our pullers without drilling additional holes, so the beet grower who is using our walking puller can easily equip it with riding attachment by ordering the necessary parts.



OCTOBER

MOON'S PHASES.

	BOSTON			NEW YORK			CHICAGO		
	D.	H.	M.	D.	H.	M.	D.	H.	M.
F. M.	7	11	11 A.	7	11	11 A.	7	10	11 A.
L. Q.	14	6	46 A.	14	6	46 A.	14	5	46 A.
N. M.	21	11	9 A.	21	11	9 A.	21	10	9 A.
F. Q.	30	1	41 M.	30	1	41 M.	30	0	41 M.

MOON'S SIGNS

LATITUDE
Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE
Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.

LATITUDE
Of Charleston; N. and S. Car., Ga. Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.

D.	D.	Historical Events.			Sun	Sun	Moon	Sun	Sun	Moon	Sun	Sun	Moon
M.	W.				rises	sets	sets	rises	sets	sets	rises	sets	sets
					H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.

40. 16th Sunday after Trinity. Luke 7. Day's Length, 11h. 49m.—11h. 49m.—11h. 54m.

1	S	♂♂♂. Landseer died, 1873	♂	5	55	5	44	11	35	5	55	5	44	11	41	5	53	5	47	morn
2	M	First Railroad in U. S., 1833	♂	5	56	5	42	morn		5	56	5	42	morn		5	54	5	45	0 9
3	Tu	Modocs executed, 1872	♂	5	57	5	40	0	39	5	57	5	41	0	44	5	54	5	44	1 9
4	W	♀ stat. Bartholdi died, 1904	♂	5	58	5	38	1	46	5	58	5	39	1	50	5	55	5	42	2 10
5	Th	♂ stat. Jas. Harlan died, 1899	♂	6	0	5	37	2	54	5	59	5	38	2	57	5	56	5	41	3 11
6	Fr	♂ gr. hel.-lat. N.	♂	6	1	5	35	4	4	6	0	5	36	4	6	5	57	5	40	4 13
7	Sa	7th. E. A. Poe died, 1849	♂	6	2	5	34	5	14	6	1	5	35	5	14	5	57	5	39	5 16

41. 17th Sunday after Trinity. Luke 14. Day's Length, 11h. 29m.—11h. 31m.—11h. 39m.

8	S	Great Fire in Chicago, 1871	♂	6	3	5	32	rises		6	2	5	33	rises		5	58	5	37	rises
9	M	♂ in ♀. Florida purch'd, 1820	♂	6	4	5	30	6	17	6	3	5	31	6	20	5	59	5	36	6 36
10	Tu	♂ h. Card. M'Closkey d 1885	♂	6	5	5	28	6	47	6	4	5	29	6	52	6	0	5	35	7 13
11	W	♂♂♂. Boer War began, 1899	♂	6	6	5	27	7	25	6	5	5	28	7	31	6	0	5	34	7 58
12	Th	♂ in perigee	♂	6	7	5	25	8	13	6	6	5	26	8	20	6	1	5	32	8 50
13	Fr	Prof. Ferrer shot, 1909	♂	6	9	5	24	9	13	6	7	5	25	9	20	6	2	5	31	9 51
14	Sa	14th. ♂♂♂	♂	6	10	5	22	10	22	6	8	5	23	10	29	6	3	5	30	10 58

42. 18th Sunday after Trinity. Matt. 22. Day's Length, 11h. 9m.—11h. 12m.—11h. 26m.

15	S	Fontanet Powder Explos., 1907	♂	6	11	5	20	11	36	6	10	5	22	11	42	6	3	5	29	morn
16	M	Pres. Taft and Diaz met, 1909	♂	6	12	5	18	morn		6	11	5	20	morn		6	4	5	27	0 6
17	Tu	♂ stat. Chas. A. Dana d. 1897	♂	6	13	5	17	0	52	6	12	5	19	0	50	6	5	5	26	1 16
18	W	St. Luke, Evangelist. ♂♀♂	♂	6	15	5	15	2	7	6	13	5	17	2	16	6	6	5	25	2 24
19	Th	♂♂♂. C. Lombroso d., 1909	♂	6	16	5	14	3	19	6	14	5	16	3	20	6	6	5	24	3 28
20	Fr	♂ gr. libration W.	♂	6	17	5	12	4	28	6	15	5	14	4	28	6	7	5	23	4 29
21	Sa	21st. ♂♀♂	♂	6	18	5	11	5	35	6	16	5	13	5	34	6	8	5	22	5 29

43. 19th Sunday after Trinity. Matt. 9. Day's Length, 10h. 49m.—10h. 54m.—11h. 12m.

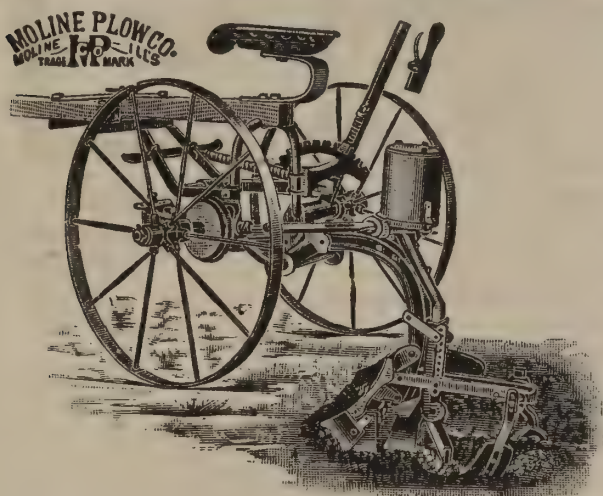
22	S	♀ greatest brilliancy: ♀ in ♀	♂	6	20	5	9	sets		6	17	5	11	sets		6	9	5	21	sets
23	M	♂♀♂ superior: ♂♀♂	♂	6	21	5	8	5	48	6	18	5	10	5	52	6	9	5	20	6 12
24	Tu	Judge R. W. Peckham d., 1909	♂	6	22	5	6	6	17	6	19	5	9	6	23	6	10	5	18	6 47
25	W	Grant Allen died, 1895	♂	6	23	5	5	6	52	6	20	5	7	6	58	6	11	5	17	7 27
26	Th	Prince Ito assassinated, 1909	♂	6	24	5	3	7	34	6	22	5	6	7	41	6	12	5	16	8 12
27	Fr	♂ stationary: ♀ in apogee	♂	6	25	5	2	8	24	6	23	5	5	8	31	6	12	5	15	9 2
28	Sa	St. Simon and St. Jude.	♂	6	26	5	0	9	21	6	24	5	4	9	28	6	13	5	14	9 57

44. 20th Sunday after Trinity. Matt. 22. Day's Length, 10h. 31m.—10h. 37m.—10h. 59m.

29	S	♂♂♂: ♀ in ♀	♂	6	28	4	59	10	23	6	25	5	2	10	29	6	14	5	13	10 54
30	M	30th. Taft at N. O., 1909	♂	6	29	4	58	11	28	6	26	5	0	11	33	6	15	5	12	11 54
31	Tu	Hallowe'en.	♂	6	30	4	57	morn		6	27	4	59	morn		6	16	5	11	morn

WESTERN BELLE RIDING LISTER AND DRILL

THE Western Belle Lister and Drill is without question the most practical and efficient tool of its kind in the market. The view presented in this illustration shows the left moldboard removed, for the purpose of giving a clear view of the subsoiler, lower seed tube and cutter in front of subsoiler. The device for turning the seed plates consists of a square shaft



THE WESTERN BELLE CAN BE FURNISHED WITH EITHER GEAR OR CHAIN DRIVE

and a long square sleeve, to each end of which are gears. The shaft is turned by a large gear attached to the axle. These gears are always in full mesh and are well protected from dust and weeds by a band which encloses them. Can be furnished with chain drive if desired. A clutch near the operating gear is automatically thrown out when the implement is raised out of the ground and stops the action of the seed plates. The axle is so constructed that the wheels can be set either wide or narrow. The change is made very easily. Chilled bearings are used on all parts subject to wear, and by patented devices the bearings for boxes are so constructed that there can be no binding, no matter what position the lister is in. The dropping mechanism has the reputation of being the best made. The distance between kernels is regulated by dropping plates having different numbers of holes. Three of these plates and one blank plate are furnished with each machine, as follows:

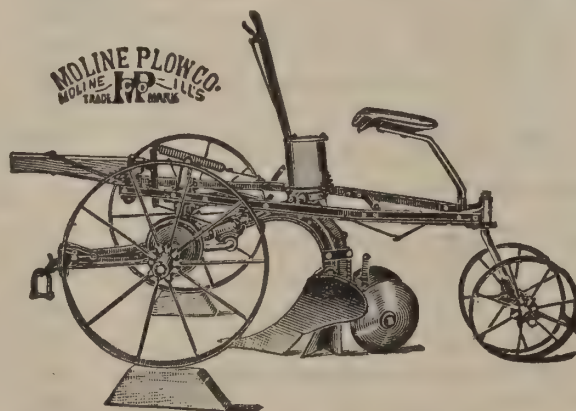
One 6-hole plate, $\frac{5}{8}$ -in. hole, drops about 18 in. apart.
One 7-hole plate, $\frac{5}{8}$ -in. hole, drops about 15 in. apart.
One 8-hole plate, $\frac{5}{8}$ -in. hole, drops about 13 in. apart.

The lister can be equipped with edge-drop device or a combination corn and cotton device, without extra charge, if specified for in ordering. The seed tube is provided with an additional tube placed in such position that the seed will always fall on loose, pulverized soil. The tube can be quickly removed if it is desired to have the seed fall on the bottom of the furrow. This is a valuable feature not contained in any other tool of this kind. The covering shovels will not clog. They can be set deep or shallow, wide or narrow and at any angle. If desired disc coverers can be furnished instead of shovels at small extra cost. The lifting spring enables the operator to raise

the plow out of the ground either when the lister is in motion or stopped, with scarcely an effort. The seed box is hinged and can be turned over and plates changed without removing the corn. A cutter is furnished and can be attached to the frog to operate in front of the subsoiler for the purpose of cutting roots or "bull grass."

TRI-BELLE LISTER AND DRILL

THE Tri-Belle Lister and Drill is merely an evolution of the successful and popular Western Belle Riding Lister and Drill. The Tri-Belle embodies all the good points of the Western Belle and presents some valuable features not found in other three-wheeled listers. The operator sits back of the seed box and is enabled to watch the working of the machine. The seed tube is open, and the grain, after being released from the seed box, passes in plain view of the operator. When the plow is in the ground the rear wheel is locked, but is released automatically and becomes a free caster when the plow is raised. The perfection with which this wheel works will be a revelation to the person who has experimented with the ordinary three-wheeled lister. When the plow is raised the wheel is unlocked, allowing the lister to be turned in either direction without the rear wheel interfering. Should it become necessary to back the lister this wheel will take care of itself. When in the ground, the wheel being locked holds the lister perfectly steady, not allowing it to sheer off to either side, as many



TRI-BELLE LISTER AND DRILL. FURNISHED WITH CHAIN DRIVE WHEN ORDERED.

other three-wheeled listers do. Instead of using a single rear wheel as found on most listers, the Tri-Belle has two staggered wheels that may be adjusted to suit conditions. When ground is not wet or sticky, wheels may be set close together to press soil to the seed, but when the soil is sticky and the wheels pick up the seed, they may be reversed on spindle, which will cause them to travel outside of the center and avoid all possibility of picking up the seed.

The hinged seed box, moldboards, and share, device for turning seed plates, chilled bearings, dropping mechanism, subsoilers, cutters, etc., are the same as on the Western Belle. This lister will be furnished with edge drop device equipment or a combined corn and cotton device instead of regular equipment, without additional charge, if specified in order.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
F. M.	D. H. M.	D. H. M.	D. H. M.
L. Q.	13 2 19 M.	13 2 19 M.	13 1 19 M.
N. M.	20 3 49 A.	20 3 49 A.	20 2 49 A.
F. Q.	28 8 42 A.	28 8 42 A.	28 7 42 A.

MOON'S SIGNS

LATITUDE
Of Boston; New England, N. York State, So. Mich., Wisconsin, Iowa, Wyo. and Oregon.

LATITUDE
Of New York City; Philadel'a, Conn., New Jersey, Pa., Ohio, Indiana, Illinois, Neb. and Cal.

LATITUDE
Of Charleston; N. and S. Car., Ga. Ala., Miss., Ark., N. La. and Texas, S. Ariz. and Cal.

D. M.	D. W.	Historical Events.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.	Sun rises H. M.	Sun sets H. M.	Moon sets H. M.
1	W	♂ in ♏. All Saints' Day	6 32	4 55	0 35	6 28	4 58	0 39	6 17	5 10	0 55
2	Th	♄ gr. libration E.	6 33	4 54	1 43	6 30	4 57	1 45	6 17	5 9	1 56
3	Fr	Steinheil Trial began, 1909	6 34	4 53	2 51	6 31	4 56	2 52	6 18	5 9	2 56
4	Sa	Eugene Field died, 1894	6 35	4 51	4 1	6 32	4 55	4 0	6 19	5 8	3 59

45. 21st Sunday after Trinity. John 4. Day's Length, 10h. 14m.—10h. 20m.—10h. 47m.

5	S	♄ in ♏	6 36	4 50	5 16	6 33	4 53	5 14	6 20	5 7	5 7
6	M	♄ in ♏. ♀ in ♏	6 38	4 49	rises	6 35	4 52	rises	6 21	5 6	rises
7	Tu	♂ ♀ ♄. Pensacola taken, 1814	6 40	4 48	5 20	6 36	4 51	5 25	6 22	5 5	5 50
8	W	♂ ♀ ♄: ♀ in aphel.; ♄ in perigee	6 41	4 47	6 5	6 37	4 50	6 11	6 23	5 4	6 40
9	Th	Great Fire in Boston, 1872	6 42	4 45	7 2	6 38	4 49	7 9	6 24	5 4	7 40
10	Fr	♂ ♀ ♄. R. G. Dun died, 1900	6 43	4 44	8 10	6 39	4 48	8 17	6 25	5 3	8 47
11	Sa	♂ ♀ ♄. Gen. Wool died, 1869	6 44	4 43	9 26	6 41	4 47	9 32	6 26	5 2	9 58

46. 22d Sunday after Trinity. Matt. 18. Day's Length, 9h. 57m.—10h. 4m.—10h. 35m.

12	S	♄ in ♏. Gen. Shafter died, 1906	6 45	4 42	10 43	6 42	4 46	10 48	6 26	5 1	11 9
13	M	♄ in ♏. 13th. Cherry Mine Dis.'09	6 46	4 41	11 58	6 43	4 45	morn	6 27	5 1	morn
14	Tu	Mme. Steinheil acquitted, 1909	6 48	4 40	morn	6 44	4 44	0 1	6 28	5 0	0 17
15	W	♄ gr. libration W.	6 49	4 39	1 9	6 45	4 43	1 11	6 29	5 0	1 20
16	Th	♂ ♀ ♄. Oklahoma adm., 1907	6 50	4 39	2 18	6 46	4 43	2 19	6 30	4 59	2 22
17	Fr	♂ nearest ☉	6 52	4 38	3 25	6 48	4 42	3 24	6 31	4 58	3 22
18	Sa	♂ ♀ ♄: ♄ in ♏	6 53	4 37	4 32	6 49	4 41	4 30	6 32	4 58	4 22

47. 23d Sunday after Trinity. Matt. 22. Day's Length, 9h. 42m.—9h. 50m.—10h. 25m.

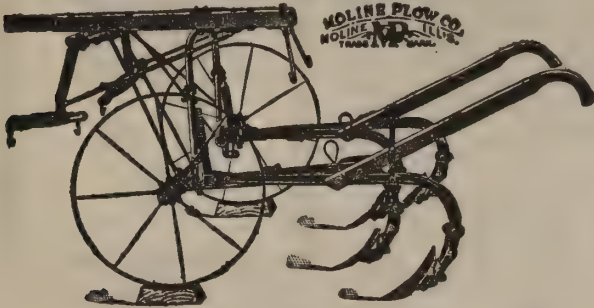
19	S	♄ in ♏. Tweed convicted, 1873	6 54	4 36	5 38	6 50	4 40	5 35	6 33	4 58	5 21
20	M	♄ in ♏. 20th. ♂ ♀ ♄	6 55	4 35	sets	6 51	4 40	sets	6 34	4 57	sets
21	Tu	Garret A. Hobart died, 1899	6 56	4 34	4 51	6 52	4 39	4 57	6 35	4 57	5 24
22	W	♂ ♀ ♄. Th. Weed died, 1882	6 58	4 34	5 29	6 54	4 38	5 36	6 35	4 56	6 6
23	Th	Battle of Chattanooga, 1863	6 59	4 33	6 17	6 55	4 38	6 24	6 36	4 56	6 55
24	Fr	♂ ♀ ♄: ♄ in apogee	7 0	4 33	7 12	6 56	4 37	7 19	6 37	4 56	7 49
25	Sa	♂ ♀ ♄. Powderly resigned, 1893	7 1	4 32	8 13	6 57	4 37	8 19	6 38	4 55	8 46

48. 24th Sunday after Trinity. John 6. Day's Length, 9h. 28m.—9h. 39m.—10h. 16m.

26	S	♀ gr. elong., W., 46° 45'	7 3	4 31	9 16	6 58	4 37	9 21	6 39	4 55	9 44
27	M	Hoosac Tunnel opened, 1873	7 4	4 31	10 20	6 59	4 36	10 24	6 40	4 55	10 43
28	Tu	♄ in ♏. 28th. W. Irving died, 1859	7 5	4 31	11 25	7 0	4 36	11 28	6 41	4 55	11 41
29	W	♀ gr. hel. lat. S.	7 6	4 30	morn	7 1	4 35	morn	6 42	4 54	morn
30	Th	St. Andrew. Thanksgiving Day	7 7	4 30	0 31	7 2	4 35	0 33	6 43	4 54	0 40

NO NAME WALKING CULTIVATOR

THIS implement was designed to supply the demand for a low-price cultivator, but in its construction the good name of the Moline Plow Company's



line of cultivators has not been jeopardized. Its extreme simplicity makes a lengthy description unnecessary.

It has a strong lifting spring, which can be adjusted to suit any weight of gang. It is provided with the same adjustable couplings that have made the New Western Cultivators so famous. It has a double evener, which is simple, and provides direct draft. Has long distance, dust proof wheel boxes. It is a good cultivator for the money, and in its class can not be beaten.

BALANCE FRAME ADJUSTABLE AXLE DANDY CULTIVATOR

THE Balance Frame Adjustable Axle Dandy is the latest addition to the well known and highly successful line of Dandy cultivators, and presents some especially valuable features. It has a long, easily operated balancing lever mounted on a rock-shaft at the forward part of the frame. The lever controls both ends of the axle in one movement, thus giving the axle a brace on each side. It is adjustable

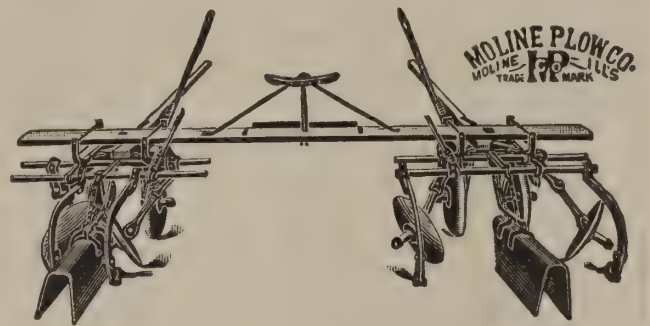


in width to fifty-two inches. This adjustment is made simply by loosening a set screw and sliding the axle to the width desired. The one and one-quarter inch steel pipe through which the inside ends of the axle pass adds great strength to the frame. The wheels are forty inches high and have long distance perfectly

dust proof boxes. The large chamber inside of the wheel box will hold enough hard oil for a two thousand mile run. The seat bar is adjustable in height. It has a joint by means of which the seat may be folded forward when it is desired to use the cultivator as a walker. The lifting rod may be used either rigid or with a yielding spring. The foot lifts enable the operator to lift the beams without dropping the lines or touching the lever. The spring equipment and foot lifts do away with all heavy lifting, making the operation of the cultivator boy's work.

SUPREME LISTER CULTIVATOR

THE wheels used on the Supreme Lister Cultivator are of pressed steel, disc shape. This shape causes them to stick to the trenches without any tendency to climb. They have chilled hub bearings and run on a one-inch spindle, which gives strength and a large wearing surface. The screw caps on the wheel and the disc hubs are dust proof and oil tight. These parts are oiled by filling the cap with hard oil and screwing it up, thus forcing the oil through the bearings



All adjustments as to width are accomplished by changing the various parts on the square shafts. The discs may be set at any desired angle by means of the corrugated adjustment nearest the disc; the discs may also be tilted by means of the round sleeve adjustment. The shields are one long piece, arched, and will prevent the plants from being covered. The seat plank always holds each cultivator level, still permitting it to move from side to side with perfect ease. The wheels and disc arms have independent lever connections. The wheels are mounted on one square shaft, and the discs on another, giving the entire length of the pipe for disc adjustment. The shovels may be raised or lowered with the independent levers, but when the discs are raised out of the ground the shovels are also raised.

Raising the machine out of the ground automatically balances the weight of the operator. This is a very important feature and accomplished in a simple manner. The cut of the cultivator shows one side set for first cultivation and the other for second. The combination of the various parts is such that the forward motion of the cultivator assists materially in raising it out of the ground. The raising levers stand at an angle that places them in convenient reach of the operator. The discs are sixteen inches in diameter.



DECEMBER

MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F. M.	5 9 52 A.	5 9 52 A.	5 8 52 A.
L. Q.	12 0 45 A.	12 0 45 A.	12 11 45 M.
N. M.	20 10 40 M.	20 10 40 M.	20 9 40 M.
F. Q.	28 1 47 A.	28 1 47 A.	28 0 47 A.

MOON'S SIGNS

LATITUDE
Of Boston; New
England, N. York
State, So. Mich.,
Wisconsin, Iowa,
Wyo. and Oregon.

LATITUDE
Of New York City;
Philadel'a, Conn.,
New Jersey, Pa.,
Ohio, Indiana, Illi-
nois, Neb. and Cal.

LATITUDE
Of Charleston;
N. and S. Car., Ga.
Ala., Miss., Ark.,
N. La. and Texas,
S. Ariz. and Cal.

D. M.	D. W.	Historical Events.	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets	Sun rises	Sun sets	Moon sets
1	Fr	Fayette City Mine Disaster, 1907	7 8	4 29	1 39	7 3	4 34	1 39	6 44	4 54	1 41
2	Sa	in Q. Jay Gould died, 1892	7 9	4 29	2 50	7 4	4 34	2 49	6 44	4 54	2 44

49. 1st Sunday in Advent. Matt. 21 Day's Length, 9h. 18m.—9h. 28m.—10h. 9m.

3	S	Illinois admitted, 1818	7 10	4 28	4 4	7 5	4 33	4 1	6 45	4 54	3 51
4	M	♂♂: ♂♂	7 11	4 28	5 22	7 6	4 33	5 18	6 46	4 54	5 1
5	Tu	5th. Mozart died, 1791	7 13	4 28	6 44	7 7	4 33	6 38	6 47	4 54	6 16
6	W	♂ in perigee. St. Nicholas	7 14	4 28	rises	7 8	4 33	rises	6 48	4 54	rises
7	Th	♂ gr. elong. E., 20° 59'	7 15	4 28	5 50	7 9	4 33	5 57	6 49	4 54	6 28
8	Fr	♂♂. H. Spencer died, 1903	7 16	4 28	7 7	7 10	4 33	7 13	6 49	4 54	7 41
9	Sa	Father Matthew died, 1858	7 17	4 28	8 27	7 11	4 33	8 32	6 50	4 54	8 55

50. 2d Sunday in Advent. Luke 21. Day's Length, 9h. 11m.—9h. 21m.—10h. 3m.

10	S	♀ in perihelion	7 17	4 28	9 45	7 12	4 33	9 49	6 51	4 54	10 6
11	M	♂ Vesta	7 18	4 28	10 59	7 13	4 33	11 1	6 52	4 54	11 13
12	Tu	12th. E. Forrest d., 1872	7 19	4 28	morn	7 14	4 33	morn	6 52	4 55	morn
13	W	♂ gr. libration W.	7 20	4 28	0 10	7 15	4 33	0 11	6 53	4 55	0 16
14	Th	Alabama admitted, 1819	7 21	4 28	1 18	7 15	4 33	1 18	6 54	4 55	1 17
15	Fr	♂ stationary: ♂ in ♀	7 22	4 28	2 24	7 16	4 34	2 22	6 54	4 55	2 16
16	Sa	♂♀. Gen. Terry died. 1809	7 22	4 29	3 30	7 17	4 34	3 27	6 55	4 56	3 15

51. 3d Sunday in Advent. Matt. 11. Day's Length, 9h. 6m.—9h. 16m.—10h. 0m.

17	S	King Leopold II. died, 1909	7 23	4 29	4 36	7 18	4 34	4 32	6 56	4 56	4 14
18	M	♂♂: ♀ in ♀	7 24	4 29	5 41	7 18	4 34	5 36	6 56	4 57	5 13
19	Tu	Darr Mine Disaster, 1907	7 25	4 29	6 45	7 19	4 35	6 39	6 57	4 57	6 13
20	W	20th. Vattel died, 1767	7 25	4 30	sets	7 20	4 35	sets	6 58	4 57	sets
21	Th	♂ in apogee. St. Thomas	7 26	4 30	5 5	7 20	4 36	5 12	6 58	4 58	5 42
22	Fr	♂ enters ♀. Winter begins	7 26	4 31	6 3	7 21	4 36	6 9	6 59	4 58	6 38
23	Sa	Battleship Utah launched, 1909	7 27	4 31	7 5	7 21	4 37	7 11	6 59	4 59	7 35

52. 4th Sunday in Advent. John 1 Day's Length, 9h. 5m.—9h. 15m.—9h. 59m.

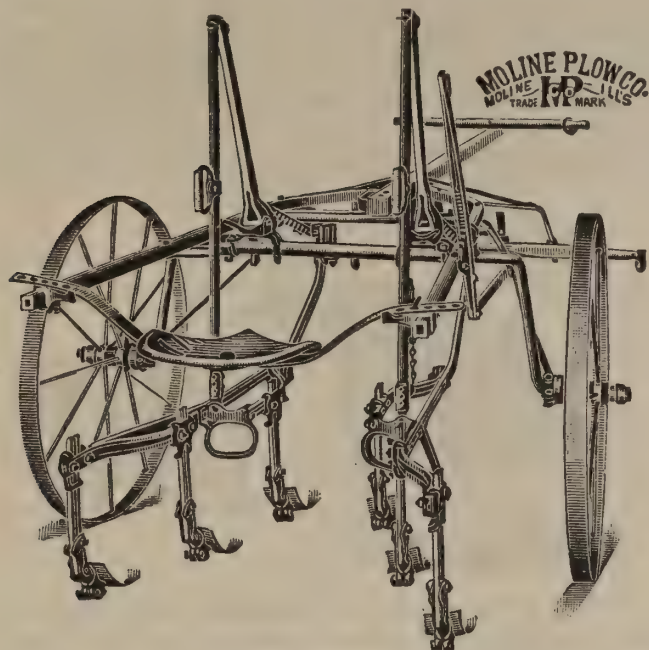
24	S	Clarence King died, 1902	7 27	4 32	8 10	7 22	4 37	8 14	7 0	4 59	8 34
25	M	♂♂ infer. Christmas Day	7 27	4 32	9 15	7 22	4 38	9 18	7 0	5 0	9 33
26	Tu	St. Stephen	7 28	4 33	10 20	7 22	4 38	10 22	7 0	5 0	10 31
27	W	St. John, Evangelist	7 28	4 34	11 25	7 23	4 39	11 26	7 1	5 1	11 29
28	Th	28th. Innocents	7 29	4 34	morn	7 23	4 40	morn	7 1	5 1	morn
29	Fr	♂ stationary	7 29	4 35	0 31	7 24	4 40	0 30	7 2	5 2	0 28
30	Sa	♂ in ♀. Monitor sunk, 1862	7 29	4 36	1 40	7 24	4 41	1 38	7 2	5 3	1 30

53. Sunday after Christmas. Matt. 1. Day's Length, 9h. 7m.—9h. 18m.—10h. 2m.

31	S	♂♂. W. Va. admitted, 1862	7 29	4 36	2 54	7 24	4 42	2 50	7 2	5 4	2 36
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DUTCH UNCLE CULTIVATOR

THE Moline Plow Company manufactures, all told, forty-one different styles of cultivators, while the different kinds of beams that can be used with them

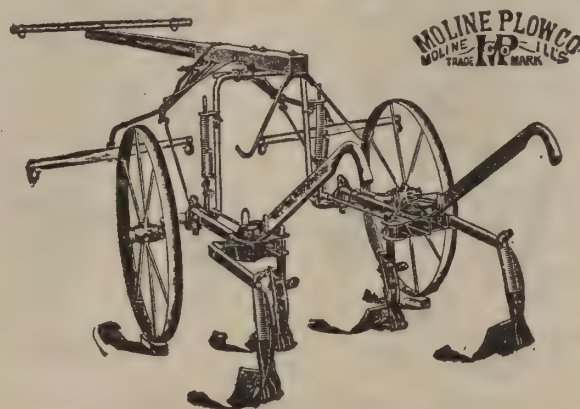


runs up into the hundreds. In a book of this size it would not be practical to attempt to show them all. The best that can be done is to illustrate the leading classes. The Dutch Uncle, shown above, is an old-time favorite in the corn belt, and grows in popularity with each succeeding season. Simplicity is the keynote of its construction, as a glance at the picture will show. There is but one lever on this cultivator and that is used to balance the frame for operators of any weight. This lever operates directly on each end of the axle, which relieves axle of considerable strain. The cultivator is adjustable in width. The adjustment is made by sliding the axle ends in or out in the pipe. Wheels have long distance dust proof removable boxes. There is only one pair of springs, but they

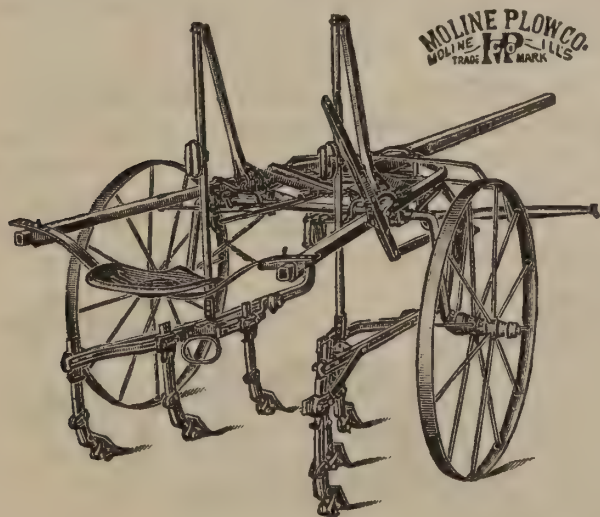
The spring has an adjustable stop block which can be set to run the shovels at any desired depth. Cultivator is all steel except the pole and singletrees. The evener is steel and the main frame is made of square steel pipe. It has all the advantages of a hammock seat without the disadvantages, for the seat strap is held from swinging back by its proper connection to the frame. Another good feature of this cultivator is that while at work in the field the gangs can be raised, lowered and guided entirely with the feet, and when work is finished they can be thrown up, where they will remain while transporting the machine. The Pivotal Dutch Uncle is built especially for use in hilly ground. The shifting lever may be used as a loose lever by swinging the latch on lever over center, or to hold cultivator on a side hill, may be set to either side as conditions require.

BALANCE FRAME SOUTHERN CULTIVATOR

THE Balance Frame Southern is an ideal cultivator and is sure to give satisfaction where a tool of its character is in demand. The beams are long and the action uniformly steady and even. The shovels are adjustable on the sleeves, either up or down, to regulate depth, and sideways to throw the soil either to or from the row. The steel double evener, with which



this implement is equipped, prevents one horse from performing more labor than the other, and always keeps the wheels parallel, the cultivator drawing squarely whether the horses pull evenly or not. The arch is constructed of two pieces, each piece being bent of one solid bar of high carbon steel, and are shaped so that they set the wheels back of the coupling, for the purpose of balancing heavy gangs. This prevents the tongue from rising when in operation or when the entire weight of the gangs is on the hang up hooks. The ends of the two pieces forming the arch "lap over" or pass by each other in a double bearing tongue casting, thus making an easy and quick adjustment for width. The Balance Frame Southern Cultivator is provided with the famous Golden Rule compressible coil springs, and equipped with cone bearing couplings. It is simple, strong and so constructed that any wear can be taken up in a moment. This cultivator can be equipped with either of twelve different styles of gangs. Has dust proof long distance axles.



answer a three-fold purpose; they lift the gangs clear up, they provide a yielding spring in case of a dead furrow, and also allow of keeping shovels at an even depth although the wheels run over an obstruction.

SEESAW CULTIVATOR

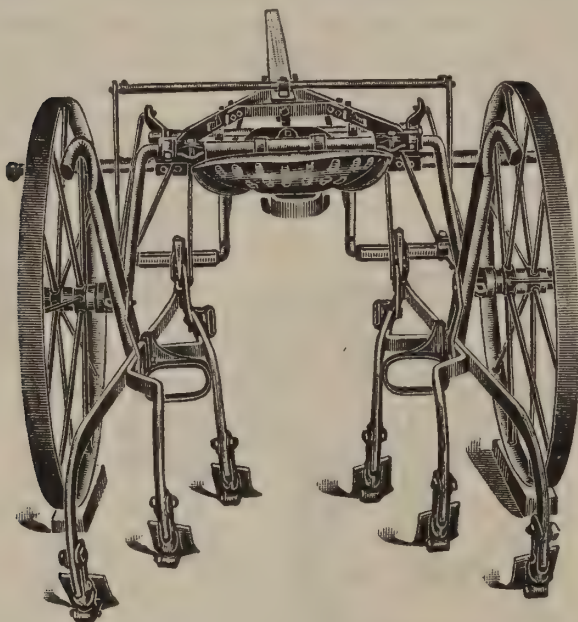
THE SEESAW is a cultivator without levers or springs, yet is always in balance when properly adjusted.

The absence of levers, ratchets and springs with necessary connections makes it a tool of few parts, hence simple and durable.

The weight of the operator counterbalances the weight of the beams and keeps the frame in balance at all times.

Balancing the frame is automatic. The axle rods are so arranged that the usual jerking action of the wheels when passing over uneven surfaces will not affect the balance of the cultivator or the depth of the beams.

The operator can balance the cultivator to suit his weight, and then adjust the beams to cause the shovels to enter at the proper depth without any effort on his part. This adjustment is made by attaching the lifting rods at the proper place on the beams—forward for a heavy operator, and back for a light operator. When so adjusted the shovels will maintain



ADJUSTABLE FOR ROWS OF DIFFERENT WIDTH.
DUST PROOF, LONG DISTANCE AXLES.

the desired depth with only the natural weight of a man's feet on the beams. Any pressure of the foot on the beam, however little, adds that much to the beam and releases the same amount from the seat, and causes the beam to respond instantly.

To cause the beams to run shallow, or raise them entirely, all that is necessary is to raise the feet and permit all of the weight to come upon the seat. By so doing both beams raise at the same time, the wheels move back and balance the frame.

The beams, hanging upon an even bar, make it easy to operate one beam independently of the other, either to raise to avoid obstructions, or plow deeper, as the case may be.

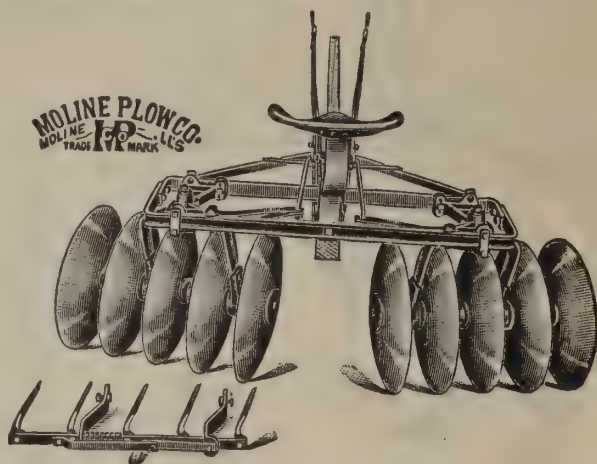
Handles are provided and by their use as perfect work can be done as with a walking cultivator.

Means for holding the beams in a raised position for transportation are provided by placing a small latch on the inside of the frame bar.

This cultivator was so popular last season where introduced that we were unable to supply the demand.

MOLINE REVERSIBLE DISC HARROW

THE Moline Reversible frame is built down close to the discs, making it lower than any other harrow of its class. The levers are short and always in the center. Easy to reach and operate. The discs may be reversed in a moment without taking them from under the frame. The gangs may be tilted by a simple

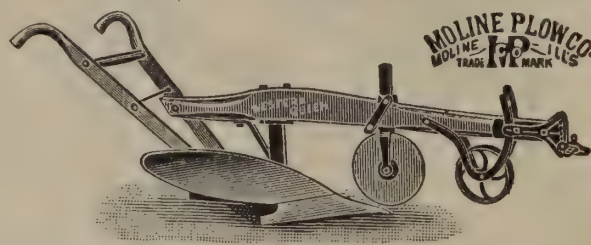


adjustment of the malleable frame spreader. Bearings have been provided with a double set of wood blocks, thus giving twice the wearing surface on the end to meet the end thrust. It is an ideal tool for orchard cultivation. The adjustment for setting the disc gangs in and out on the frame gives it a scope that covers the entire field for which a tool of this size may be used. This harrow is being used by cotton growers, who claim it is a great labor saver. In barring off cotton, for instance, it will do the work of two men and four horses.

The Moline Reversible Harrow can be furnished with tongue truck at a nominal charge. This truck has high steel wheels, to permit working over ridges, and wheels are equipped with dust proof hubs. Like the Economy tongue truck, described elsewhere, this truck can be worked either tongueless, with straight tongue or with set over pole. The truck works perfectly in either combination and will be found a valuable attachment.

WESTERN QUEEN BREAKER

THE best and easiest running breaker ever brought into use. It has a long, tapering moldboard and flat share, making it of very light draft. Turns sod entirely over, leaving smooth surface for easy and thorough cultivation. It is equipped with extra share,



gauge wheel, rolling coulter and clevis; standard is double braced at bottom and has adjustable cap. Extra shares are duplicates, and it is not necessary, as with breakers usually, to have them fitted by a blacksmith.

LAY BY LISTER CULTIVATOR



THE above picture was taken in Oklahoma. Our dealer at this point sold last season forty-eight Lay Bys, and lost the sale of over twenty because he could not get another shipment in time to fill the orders. This is the only successful two-row lister cultivator for laying by corn that was ever built.

The Lay By meets the demand for a two-row lister cultivator that will do the work that heretofore has required two machines to accomplish. Growers of listed corn have found it necessary to use two cultivators, a lister cultivator for first and second cultivations, and, on account of the height of the corn, a higher machine for finishing the crop. The Lay By does away with one machine. No other cultivator is required. It handles the corn from start to finish and does the best of work all the time.

While the plants are small and in the bottom of the trench, the cultivator is set close as shown in left hand side of the accompanying picture. In this position the discs and shovels cultivate the sides and bottoms of the trenches. The plants are well protected by the closed top shields.

As the plants increase their growth it is necessary to keep the weeds down and at the same time throw some of the soil from the banks the corn. This is accomplished by reversing the discs, shown in right hand side of the picture. After this operation the ordinary lister cultivator is useless as the trench guide the machine, and is too high for the common type of lister cultivator. For these reasons the Lay By is built high and provided with a wheel guide, making it easy after the trenches have been destroyed. It also adjusts its rows. The frames, or wheel standards, are adjustable, so that they can be narrowed to fit the different size trenches, and can be widened, or set apart, when the trenches are gone.

The frames can be adjusted by simply turning the adjusting rod under the frames. It is not necessary to take the entire cultivator apart and rebuild it in the field. The value of this feature should not be underestimated.

It has a wheel guide, the only effective means of guiding a cultivator of this style.

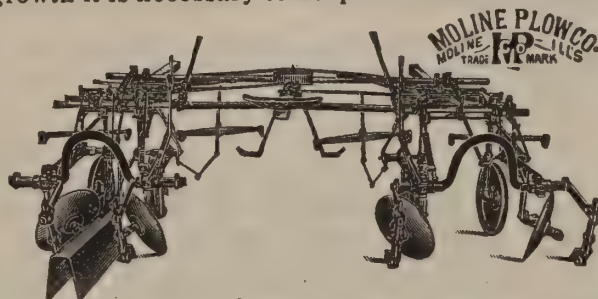
It has an independent lever to operate the shovels.

It has a yoke between beams to keep the beams from spreading or coming together. This is another feature of the utmost importance, as a disc and shovel both set to throw the soil the same way exert considerable power and unless connected by a yoke it will be impossible to hold them in place.

The draft draws the beams into the ground.

Discs, shovels and shields are raised by the operation of one lever. Springs make this easy.

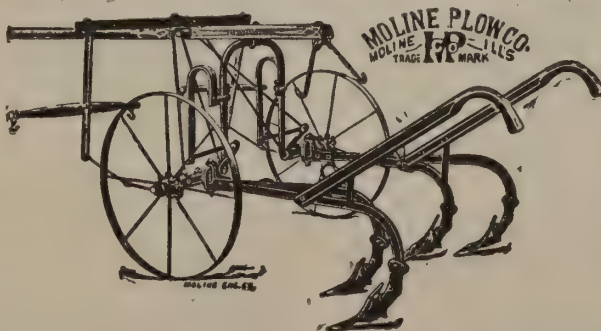
The clearance is as great as on an ordinary cultivator.



NEW WESTERN CULTIVATOR SINGLE EVENER

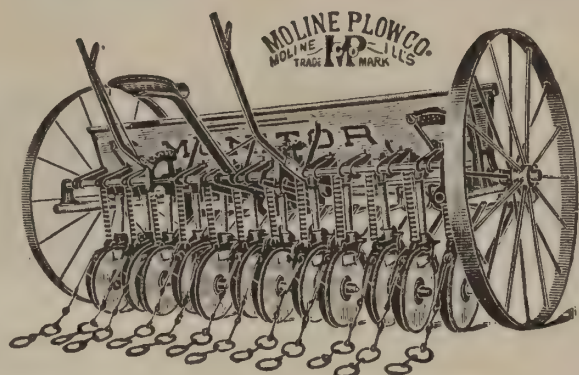
THE New Western has for years been the leading walking cultivator throughout the corn belt. It is made of the best materials—

eral construction is intended work with the lightest draft operation. The flat springs obviating the necessity of ground, lighten the draft ciency of the work. The New a boy without in the least the new draft device the the ground to any required the part of the driver. The adjustable in every way. A for putting in small grain. furnished when desired. The cultivators are equipped with long distance hub boxes. Can also be furnished with adjustable arch.



light, yet strong, and its gen- to insure the most perfect and greatest possible ease of with adjustable tension, while lifting shovels from the without impairing the effi- Western can be operated by overtaxing his strength. With shovels may be forced into depth without any effort on cone bearing coupling is center shovel can be attached Steel double evener can be

Monitor Double Disc Drill



**Less Seed
Bigger Yield
Higher Grade**

Our Claims:

They are approximately one-third lighter draft than any other machine.

They are the only drills that cannot be clogged either in mud, gumbo, or adobe soil, or in weedy or cornstalk ground.

They are the only drills that will put all the seed at the bottom of a clean, wide furrow at an even depth, in two rows, and cover it with a uniform amount of earth, by reason of which

They require one-fifth less seed to be used than required by other machines.

They have increased and usually will increase, the yield of wheat from three to seven bushels per acre (and other grains in proportion).

Wheat grown from seed sown by them will grade higher, and consequently bring a better price than if grown from seed sown otherwise.

A farmer can make and save enough off of fifty acres, by using one of these machines instead of any other, to pay for it in one season. The Monitor will pay for itself in less horse flesh, less seed, bigger yield, higher grade.

Read the appended testimonials. Send for free printed matter which fully illustrates and describes this machine. It tells how the Monitor will increase the yield and raise the grade.

Bucklin, Kas., 9-14-10.

Moline Plow Company,

Gentlemen:

You ask for my experience with the double disc Monitor drill.

I own and operate nine hundred acres of land here and last season put out four hundred acres of wheat. I used an engine to which I attached two drills, the Monitor 20-6 double disc and one 10-8 single disc of another make.

The wheat sown with the double disc Monitor came up six to seven days sooner than the wheat sown with the single disc. It was much better stand, every grain seemed to have germinated, while the wheat sown with the single disc, not more than two-thirds seem to have germinated.

It made a more rapid growth and stood the winter much better, also the dry windy weather much better and as near as could be estimated made 25 per cent better yield.

I have rented my land this year for wheat and have made it a part of a signed contract with the tenant that the wheat should be sown with a double disc Monitor Drill.

My experience with the double disc Monitor Drill is such that I would buy a double disc Monitor Drill

rather than be furnished with any other make free of charge.

Any of this statement can be verified by the farmers in my vicinity who watched the results and I would be glad to answer inquiries from anyone interested.

With best wishes for the Monitor Double Disc Drill, I am,

Yours truly, Ed. Warner.



The accompanying picture shows how grain is planted on the ranch of Mr. Ambrose Hemingway, Bucknum, Wyoming. Mr. Hemingway says: "We consider the Monitor one of the best tools we have. It has paid for itself several times over and has never given any trouble or cost a cent for repairs. With the rig shown we levelled and drilled about forty acres a day."



What Users Do To Mandt Wagons— What Mandt Wagons Do For Them

Last year, in this book, we showed you a picture of a Mandt Wagon loaded with a seven ton boiler that had been hauled three miles over rough country roads. The picture above was taken at Casper, Wyoming. It shows two Mandt Mountain Trucks loaded with a thirty thousand pound passenger coach, which was hauled over three railroad tracks, and delivered at destination without affecting the wagons in the least. The picture below is a Nebraska scene. The load represents more than seven tons, and was hauled a mile and a half. Of course these loads exceed guaranteed capacity, but they show the confidence of people who know, and also, that the Mandt has plenty of reserve strength. The Mandt is the most complete wagon on the face of the earth. Ask for full information.



Henney Buggies



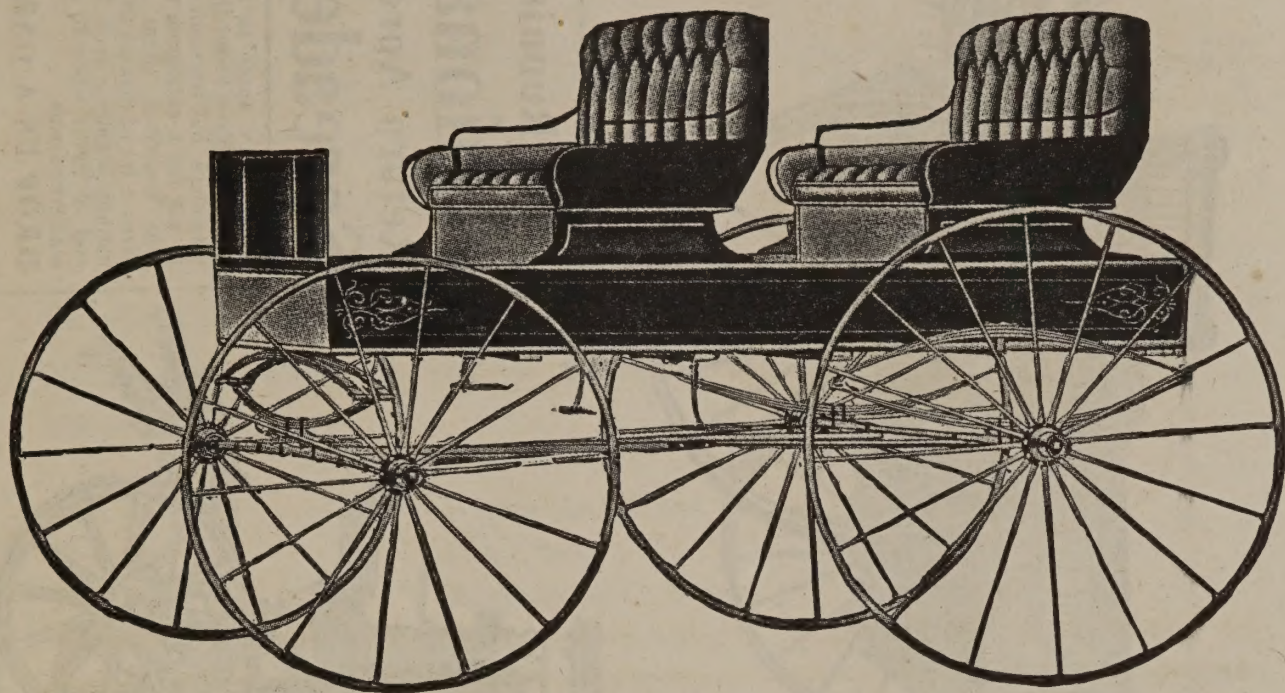
Built in the
Largest Buggy
Factory in the
United States

We guarantee Henney Buggies for one year after purchase from our dealers

Henney Buggies are original and pleasing in design. They are comfortable to ride in and are built to last. This is one of the strongest reasons for their great popularity. The owner of a Henney gets more years of service out of his buggy, and the buggy retains its beauty. Read what Mr. J. W. Jones, of the firm of Jones Bros., Mooreville, Texas, says:

The writer took out one of the Henney Buggies we bought of your company (No. 208) for his own use, and while a horse was hitched, a team of mules, hitched to a wagon, ran over the buggy, turning it completely over. I could not see how it could escape being made into kindling wood, but to my surprise the damage was comparatively slight. The boxings were cracked in all the wheels, and the dash board (No. 326) was damaged.

A buggy that will stand a jolt sufficient to break the boxings in all the wheels and not damage it in other respects, shows that it was made of good stuff and put together by someone that knew how. The "know how" is an essential qualification—good materials do not of themselves make good buggies.



IF YOU are going to need something in the way of a Spring Wagon, don't fail to examine the

Freeport Carriage Co.'s Line

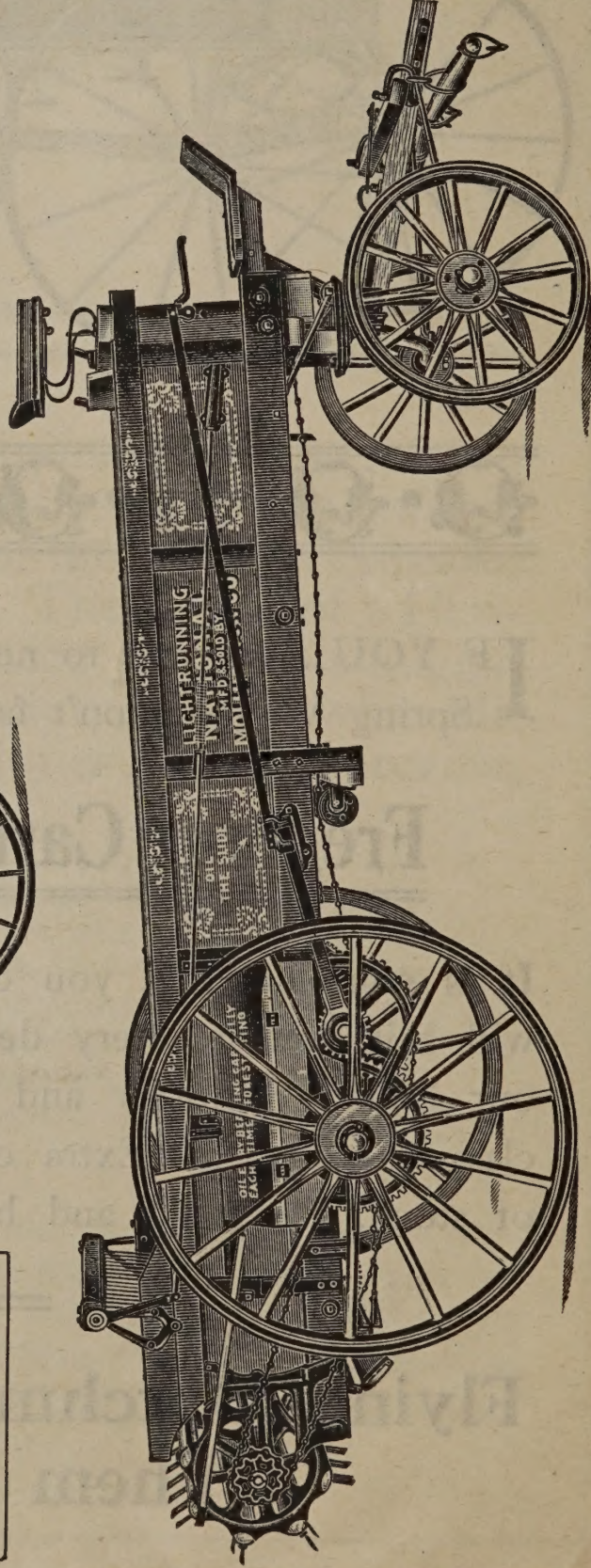
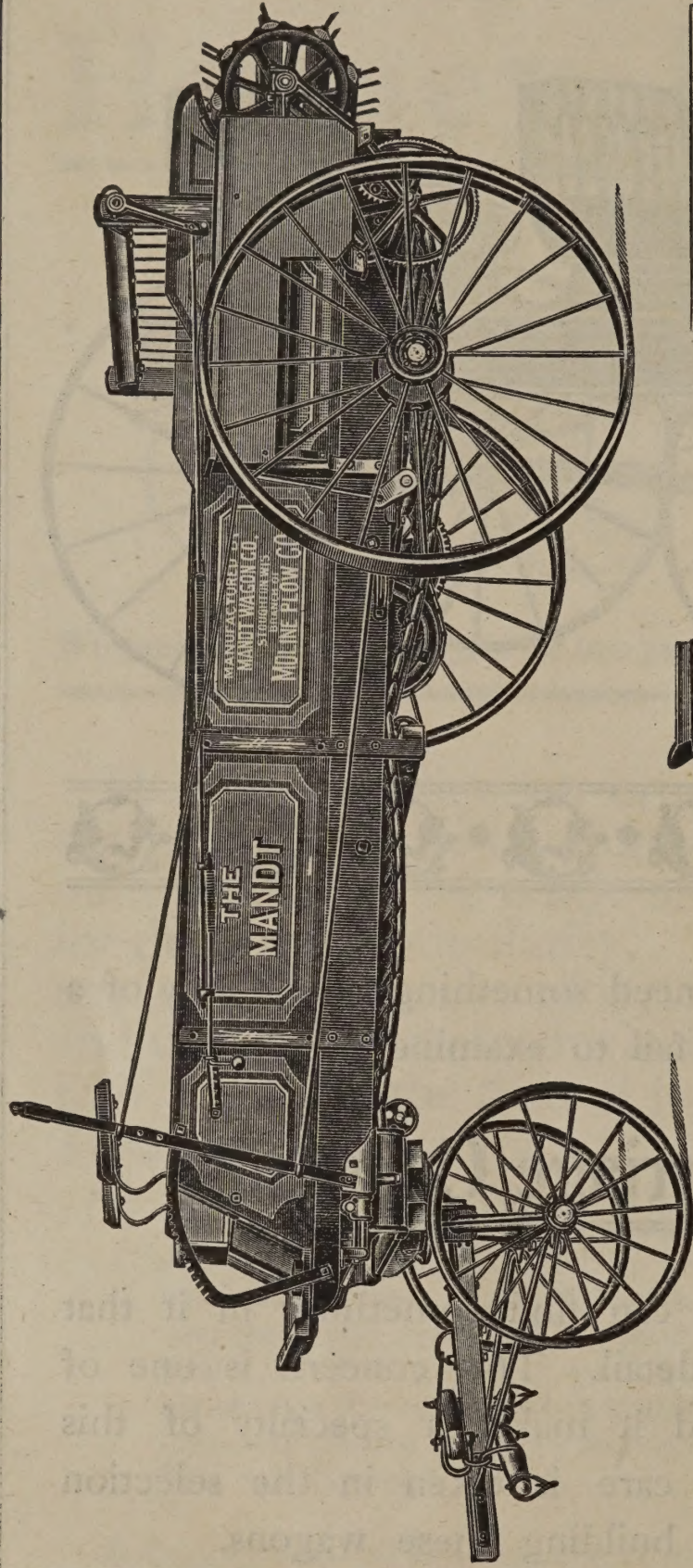
It is complete and you can find something in it that will suit you in every detail. This concern is one of our branch factories and it makes a specialty of this class of vehicles. Extra care is taken in the selection of stock, designing and building these wagons.

**Flying Dutchman Dealers Carry
Them in Stock**

The Mandt Endless Apron Spreader.

These spreaders are made by our branch factory, the Mandt Wagon Co., which is sufficient guarantee as to construction and efficiency. Just as much care is taken in selection of material and building as is exercised in the manufacture of our wagons. No other spreaders are made by expert wagon mechanics.

Every machine is set up and operated at the factory



Light Running National Return Apron Spreader

We haven't space in this book to tell you about these spreaders, but we want you to ask for a catalogue that fully describes them, and gives a lot of manure information besides. It is free and of great value to any man who farms.

DROP US A CARD.

JUST BECAUSE YOU DON'T SEE IT in this book, don't imagine that we do not manufacture it. The space available here is not sufficient to show one-third the line we make. We have everything for preparing the soil, planting and cultivating the crop. These tools are made in styles suitable for the soil peculiarities of every locality:

Stalk Cutters	Engine Gang Plows	Bean Planters
Walking Plows	Disc Plows	Walking Cultivators
Vineyard Plows	Reversible Disc Plows	Riding Cultivators
Breaking Plows	Steel Lever Harrows	Two-Row Cultivators
Rod Breaking Plows	Wood Frame Harrows	Two-Row Lister Cultivators
Middle Breakers	Disc Harrows	One-Row Lister Cultivators
Road Plows	Reversible Disc Harrows	Disc Cultivators
Subsoil Plows	Tongue Truck for Disc Harrows	Surface Cultivators
Fore Carriage for Plows	Alfalfa Renovators	Orchard Cultivators
Potato Diggers	Harrow Carts	Sugar Beet Tools
Sulky Plows	Pulverizers	Grain Drills
Gang Plows	Corn Planters	Side Delivery Hay Rakes
Two-Way Plows	Cotton Planters	Hay Loaders
Wheel Walking Gang Plows	Listers	
Vineyard Gang Plows	Drills	

Q In addition to the Flying Dutchman line of farm tools we make Farm Wagons, Farm Trucks, Return and Endless Apron Manure Spreaders.

Q Our factories, where we make Buggies, Surreys, Carriages. Spring Wagons and Business Wagons, have a capacity greater than that of any other buggy factory in the United States. If you visited our exhibits at the state fairs last fall you know our 1911 styles are unequalled.

Q Write to us. Tell us what you are thinking of buying. It will be a pleasure for us to give you any information we can.

MOLINE PLOW COMPANY

BRANCH HOUSES:

Kansas Moline Plow Co. - - - - -	Kansas City, Missouri
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Texas Moline Plow Co. - - - - -	Dallas, Texas
Missouri Moline Plow Co. - - - - -	St. Louis, Missouri
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